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The ILLINOIS Medical Journal

VOL. 89 ✳ NO. 2

February, 1946

In This Issue

Hematology - A Round Table

✦

Functional Nervous Disorders

✦

---- and Others

✦

(See page 39 for complete Table of Contents)

ANNUAL MEETING, ILLINOIS STATE MEDICAL SOCIETY
PALMER HOUSE, CHICAGO, MAY 14, 15, 16, 1946

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

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February, 1946

VOL. 89, NO. 2

The Illinois Medical Journal

Official Journal of the Illinois State Medical Society

EDITOR — Harold M. Camp. EDITORIAL BOARD — James H. Hutton, Chairman, Frederick H. Falls, Josiah J. Moore, Edwin M. Miller, Chauncey C. Maher, Harry S. Gradle, Harry Culver, Walter Stevenson, Raymond W. McNealy.

Editorials

THE SPECIAL MEETING OF THE HOUSE OF DELEGATES

The January issue of the Illinois Medical Journal carried a short notice of the special meeting of the House of Delegates of the Illinois State Medical Society held at the Hotel Sherman, Chicago, on Sunday, January 6, 1946. The meeting, arranged on short notice and under great difficulties, owing to the fact that one of the largest conventions of the year was in progress in Chicago at the time, was well attended, there being approximately 118 delegates present.

The first subject on the agenda for the special meeting was to hear the final report and recommendations of the Committee on the Study of Prepayment Plans for Medical and Surgical Care, this committee having held many meetings since it was appointed by the Council as recommended by the House of Delegates at the 1944 Annual Meeting, and had given careful consideration to all plans in operation for voluntary prepayment medical and surgical care.

Many groups had been interviewed at these many sessions, and even though a suitable enabling act had been passed at the last session of the Illinois Legislature, it was finally the unanimous opinion of this committee that it would be best to recommend an indemnity plan with commercial carriers, which would develop a policy to give the benefits as recommended by the committee, and at a minimum cost to the policyholders in keeping with the committee's recommendations.

Members of the Committee were given definite and pertinent subjects which were presented to the House of Delegates, following the report of the committee chairman, Dr. Charles H. Phifer. In order that careful consideration might be given to the subject of medical service plans, an outstanding director of a medical service plan, who is well informed on the subject, was presented, and he gave a highly informative talk on the advantages of medical service plans, as he saw them, and was asked to answer any questions asked by the delegates present. A considerable amount of time was devoted to this question and answer period, every delegate having the opportunity of either asking questions, or giving their own views on the subject.

When the question was finally called, the House by an overwhelming majority voted to approve the report and recommendations of the committee, to place in operation as soon as possible, an indemnity plan. The House also voted unanimously to make this special committee of the Council, the official State Society Committee to carry on, arrange for the selection of suitable companies willing to issue the recommended type of polices, and to act as the Society Advisory Committee.

The second subject on the agenda was pre-

sented by the Secretary, who had recently made a trip to Washington to confer with representatives of Maj. Gen. Paul R. Hawley, Chief of Medical Services in the Veterans Administration, in reference to an Illinois Plan for the care of veterans with service connected disabilities, these men to be cared for at home by the physician of their choice.

The subject was presented to the House in more detail by Percy E. Hopkins, M. D., chairman of the Council and its special committee appointed to draw up a tentative plan to be presented before the House of Delegates. The plan, as approved by the Council, was presented by Doctor Hopkins, and at the same time a fee schedule which had been approved by another State Medical Society, then by the Veterans Administration, was passed out to all delegates for their information.

After a short general discussion on the subject, the plan as proposed by General Hawley was unanimously approved. The tentative Illinois Plan as approved by the Council was likewise unanimously approved by the House. When consideration was given to the fee schedule, which had been mimeographed and passed out to all members, the schedule was approved in principle, and the committee was instructed to go over same in much detail, make perhaps a few minor changes as seemed desirable, then the plan and schedule were to be submitted to the Veterans Administration for final approval.

It was suggested by the House of Delegates that the Secretary be instructed to send copies of this schedule to a group of specialists in the several specialties to get their suggestions as to the fees pertaining to their special line of work. The President urged members of the House of Delegates to look the entire schedule over critically and note any changes which they believed should be made, and send same to the committee as early as possible.

Following the meeting, the recommendations of the House in regard to the fees for services to be rendered, were carried out by the Secretary, copies being sent to a considerable number of Illinois physicians in various specialties to get their individual comments and recommendations. The committee will meet early in February and after all proposed changes have been carefully

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considered will be ready to submit the proposed Illinois plan, as approved by the House of Delegates, and the revised fee schedule to the office of General Hawley in the Veterans Administration for final approval, so the plan may be placed in operation in Illinois at the earliest possible moment.

Dr. Everett P. Coleman, Canton, Illinois, presided over the House of Delegates in a highly efficient manner, giving every delegate the opportunity to ask any questions or give individual opinions on the subjects under discussion. Although the transactions were completed in one day, it was a long day, the delegates were patient, intensely interested, and all present were thoroughly impressed with the importance of the subjects that were schedule on the agenda.

It seems quite probable that the complete transactions of this special meeting will be published in full in the March issue of the Illinois Medical Journal.

IN MEMORIAM
CARL ELLSWORTH BLACK
1862 - 1946

Carl E. Black, M. D., a practicing physician at Jacksonville for more than 58 years, died suddenly at the Dunlap Hotel, Jacksonville, on Sunday evening, January 13, while in conference with other physicians. Dr. Black served as president of the Illinois State Medical Society in 1904, and for many years after holding this office, was a regular attendant of the annual meetings. During the recent World War, he acted as secretary of his own Morgan County Medical Society during the absence of all of the younger men from his community. At the regular meeting of the society on January 10, Dr. Black tendered his resignation as secretary with the following statements: "The war is over and many of the younger physicians formerly in service have returned to their practice, and it is up to them to take over the responsibilities of arranging for the regular monthly meetings, seeing that suitable programs are arranged and let us older men sit on the sidelines."

Dr. Black was born at Winchester Illinois, on July 4, 1862. His father, Dr. G. V. Black, became known throughout the world as the father of modern dentistry, and was made the first Dean of Northwestern University Medical School of Dentistry, a position which another son, Dr. Arthur Black, likewise held for a considerable number of years. Dr. Black received his B. S. degree from Illinois College, Jacksonville, in 1883, and his degree in Medicine from the Chicago Medical School, which later became the Medical School of Northwestern University in 1887. Upon the completion of 50 years in medicine, his county society held a special meeting in Jacksonville, at which time he was made a member of the Fifty Year Club of the Illinois State Medical Society, and received the membership certificate and emblem which is presented by the State Society to physicians who have completed fifty years in medicine.

During World War I, Dr. Black was a member of the American Red Cross Commission to Greece where he had charge of medical relief in 1918 and 1919. He was decorated by the King of Greece in commemoration of the fine work which was accomplished under his leadership. A charter member of the American College of Surgeons, Dr. Black was quite prominent in its development in Illinois, acting as Govenor for the College for a period of several years. Invariably a follower of medical and surgical progress, he accumulated a personal library of more than 3,000 volumes of medical works, which a few years ago, he turned over to the local Passavant Hospital.

He was the author of several books, and these, with 1,000 or more manuscripts were presented to the Illinois State Historical Society. Dr. Black, always interested in medical history, had as a special hobby, the collecting of photographs of outstanding physicians, then later as secretary of the Illinois State Medical Society Committee on Archives, he centralized his efforts in procuring photographs of Illinois physicians. His large collection of many thousands of photographs was presented to the State Medical Society. Dr. Black appeared before the House of Delegates at the annual meeting some four years ago, offering the entire collection to the Society, and insisted that the collection be enlarged and housed permanently at the Illinois State Historical Society Building in Springfield. This generous offer was accepted by the House of Delegates, and efforts were then made to add many thousands of additional photographs to be sent to Black for mounting, filing and indexing. Then the

Carl Ellsworth Black, M.D.
1862 - 1946

entire collection would be taken to Springfield.

The Secretary of the Illinois State Medical Society and the Councilor for the district in which Jacksonville is located, appeared before the Morgan County Medical Society only three days before the death of Dr. Black, at which time he stated that the work of mounting and indexing the photographs was almost completed and within a short time, they would be ready for the transfer to the Illinois Historical Society building in Springfield. The officers of the state society present were given a message by Dr. Black to be transmitted to the Council.

The collection of photographs collected by Dr. Black throughout his long professional career will be known as the Carl E. Black — Illinois State Medical Society Collection. The Society will endeavor through an active permanent committee to add to the large collection, said to be the largest collection of photographs of medical men privately collected in the United States, and to aid materially in accumulating biographic material to be added to the collection and increase its historical value.

The wife of Dr. Black, formerly Bessie McLaughlin to whom he was married in 1889, died in 1942. Dr. Black had three daughters, Mrs. George Drennan and Mrs. Wallace Hembrough, both of Jacksonville, and Miss Elizabeth, who cared for her father at the family home until his death. There are two sons, Dr. Ellsworth of Jacksonville, and Kirby who resides in Peoria. Two sisters of Dr. Black, Mrs. Mark Baldwin and Miss Clara Black both reside at Duluth, Minnesota.

During his professional career of more than 58 years, Dr. Black's chief interest was in surgery, and he performed many thousands of major operations, and took great pride in relating how many technical operations he performed after his 80th birthday.

For a number of years, he has been distinguished within the Illinois State Medical Society as being the oldest living past president, and he was quite reluctant indeed, to tell how long it had been since he presided at the annual meeting during his term of office. He was quite prominent in the development of a new constitution for the society in 1902 and 1903, at which time the Council was organized.

The thousands of friends of Dr. Black in Illinois and throughout the nation will long remember this grand man of Illinois medicine, and at this time, extend their sympathy to the family at his passing.

SEPARATIONS FROM THE SERVICE

The following Illinois physicians have been separated from the service since the last issue of the Journal:

Albers, Elmer A., Lockport
Allison, Charles Jr., Kankakee
Armstrong, Robert B. Jr., Rockford
Aronoff, Joseph, Morton
Ash, Alfred S., Quincy
Ball, Orrie H. Jr., Bloomington
Barnes, Gareth B., Elign
Bates, Robert R., Joilet
Baxter, Raymond E., Bloomington
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Bennett, David Andrew, Canton
Berman, Peter, Durand
Bower, Willis H., Galesburg
Bowman, Harold S., Jacksonville
Brott, Everel W., Lena
Carey, Gregory M., Joliet
Carey, James C., Joliet
Carlin, George W., Joliet
Carney, Thomas B., Kewanee
Christensen, Frank A., Peoria
Clark, Cliff L., Onarga
Clark, John S. Jr., Freeport
Copeland, William J., Cary
Countryman, Howard D., Rockford
Cox, Elwood H., Mt. Pulaski
Crandle, Ellis R., Carbondale
Cunningham, Glenn D., Rock Island
Daly, Anthony J., Rockford
Dean, Robert K., Peoria
Doud, Ray W., Normal
Drennan, George L., Jacksonville
Dunn, Marion F., Hinsdale
Engelbach, Hermann F., Jacksonville
Ennis, E. Harold, Springfield
Evans, Harvey A., Metropolis
Fahrner, George V., Joliet
Fair, John R., Wolf Lake
Fairshter, Alex E., Brookport
Feldman, Harold, Pekin
Finkle, John R., Plainfield
Fischer, George G., DuQuoin
Flickinger, George H., Hopedale
Foley, Charles J., Waukegan
Fox, William W., Lincoln
Freedman, Morton Jashua, Peoria
Freeman, Wendel R., Champaign
Freiheit, Harold J., Highland
Frye, Garnet M., Peoria
Gillesby, William J., Effingham
Giltner, Otis B., Sheffield

Hartman, Henry A., Kankakee
Hepner, Paul E., Danville
Hollander, John D., East St. Louis
Jacobs, Frank D., Farmington
James, David E., Belvidere
Johnson, Ira W., Noble
Kaim, Samuel Cedric, Rock Island
Keating, Donald J., Momence
Kerst, John A., Springfield
Ketterer, Francis H., Breese
Kohlstedt, Kenneth D., Springfield
Krieger, Leslie W., McHenry
Kunsch, Ladislaus J., Naperville
Lampert, Elmer G., Wheaton
Lang, Herbert, Armington
Lenth, Vincent T. J., Jacksonville
Lenz, Charles R., Springfield
Levis, William P., Springfield
Loar, Ralph Rinehart, Normal
Logsdon, Robert E., Mt. Sterling
Lowy, Howard A., Creve Coeur
Luke, Edward A., Waukegan
Madison, Burle B., Springfield
Marquis, Neal J., Sterling
Martin, Richard R., Peoria
McCulley, Robert A., Pecatonica
McCuskey, John M., Peoria
McGinnis, William T., Carbondale
McGuinness, George A., West Chicago
McMahon, John V., St. Charles
McSweeney, Wayne S., Joliet
Meagher, George B., DePue
Metro, Michael L., Alton
Moisant, Bernard E., Aurora
Montgomery, Burtis E., Harrisburg
Morgan, George E., Bloomington
Morgan, Jack A., Elgin
Mosney, Emil K., St. Charles
Munson, Fred W., Streator
Nelson, Charles A., Pekin
Newton, William H., Woodstock
Norbury, Frank G., Jacksonville
Nourie, Raymond L., Kankakee
Potter, Jacob J., Rockford
Price, Robert G., Bloomington
Raber, Paul A., Bloomington
Rathbun, G. E., Rock Island
Redmond, Ralph Newman, Sterling
Richards, Francis L., Springfield
Roane, Robert D., Carlyle
Roberts, Jos. M., Watseka
Roeder, Stuart D., Watseka
Rose, Gabriel, Kankakee
Roseborough, Albert S., Rockford
Ross, Ed. Y., Cobery
Rossiter, Donald E., Highland Park
Roth, John B., Morris
Sandberg, Kurt H., Stewardson
Schnepp, Kenneth H., Springfield
Schowengerdt, William H., Champaign
Schreiber, Adrain L., Caledonia
Schwartz, Martin L., Murphysboro
Scott, Dale F., Sterling
Siegert, Frederick W., Pana
Sinow, Sidney A., Clinton
Sonenschein, Benjamin, Chenoa
Spicer, Donald D., Paris
Trumpe, Darrell Hart, Springfield
Turner, Marion A., Christopher
Wald, Sidney I., Galesburg
Wedig, John H., Alton
Weir, John M., Decatur
Wiltrakis, George A., Alton
Wolff, Luther H., Waukegan
Yarbrough, Charles L., Cairo
Young, James M., Orion
Youngerman, William M., Champaign
Yovaish, Walter, Lockport
Ziffren, Sidney E., Rock Island

REFRESHER COURSES FOR ARMY DOCTORS

Major Gen. Norman T. Kirk, Surgeon General of the Army, announced recently that refresher training courses covering twelve weeks will be offered to doctors leaving the service in the fields of medicine, surgery and neuropsychiatry. The program will be available until June 30 at army hospitals to reserve corps, National Guard and medical corps officers scheduled to leave the service.

Such a refresher course would provide temporary duty assignment at hospital where the medical officer would have clinical work under supervision and opportunity for study of recent advances in medicine.

State Department of Public Health

SERVICES RENDERED BY A COUNTY HEALTH DEPARTMENT

RICHARD F. BOYD, M.D., M.P.H.
Chief, Division of Local Health Administration
Illinois Department of Public Health

Before the residents of any Illinois county vote on the question of establishing and maintaining their own *permanent* health department, they will undoubtedly be interested in knowing just what benefits they may expect to receive from such an organization. In describing the services rendered by a full-time county health department, I refer only to activities of a department that is both adequately staffed and adequately financed.

An adequately staffed county health department is one which has a ratio of approximately one public health nurse to every 5,000 people, one sanitation officer to every 25,000 people, one health officer to every 40,000 to 50,000 population, one health educator for every 40,000 to 50,000 population and one stenographer for every 15,000 population. To finance such a health department a budget of approximately $1.00 per capita is recommended.

In order for a health department to operate effectively, it is necessary also that the staff be adequately trained. The Health Officer, public health nurses and health educator must have a year of academic training in public health as a specialty in addition to their basic education and the sanitary engineer must be well grounded in the field of sanitation. The sanitarian, although less highly trained than the sanitary engineer, should have some academic training in the field of general sanitation.

With a full-time county health department operating in a county, one of the first improvements that residents of that area hay expect is a reduction in the incidence of communicable diseases. This decrease is brought about, in part, by careful epidemiological investigations conducted by the health officer at the outbreak of all epidemics, resulting many times in the discovery of the focus from which such epidemic started. A carrier may be found to be the focus of infection in a violent typhoid fever epidemic, or a milk handler in an outbreak of scarlet fever or streptococcus sore throat. With the focus of infection determined, measures for controlling the epidemic can be instituted promptly. Also of assistance to practicing physicians in overcoming such epidemics are the consultant services of the county health officer who is well trained in the diagnosis of communicable diseases.

The chief interest of the health officer, however, lies in the *prevention* of communicable diseases rather than in their control. By vaccination and immunization procedures many of the common communicable diseases may now be prevented, and Illinois health officers concentrate much time and effort in the promotion of effective campaigns for vaccination against smallpox and immunization against diphtheria, typhoid fever and whooping cough. With a large percentage of the people of the county immunized, these diseases soon disappear as they are unable to find a foothold among susceptible persons.

Although Illinois has witnessed a marked decrease in the incidence of smallpox and diphtheria during the past decade, the State's record with respect to these diseases is still not as good as it might be. The present incidence of smallpox and diphtheria in Illinois offers little com-

fort to one who knows that these diseases have become practically non-existent in some of the eastern states.

The public health nurse, as well as the health officer, also plays an important role in the control of communicable diseases. On request of the family physician, she visits the home in which there is a case of communicable disease and demonstrates to the family a method of isolating the patient in one room of the house. By the use of proper isolation technique, the remaining members of the household may be prevented from contracting the disease.

Tuberculosis and venereal diseases are usually considered of such great importance by health officers that separate and intensive programs are conducted in an effort to control them. The tuberculosis control program is aimed at finding early cases of the disease and providing treatment for such cases in sanatoria. By the hospitalization of patients having tuberculosis, two results are accomplished; the patient is removed from the household where there is a constant danger to those who come in contact with him, and, he is placed in the care of persons specially trained in the treatment of tuberculosis where he has the best possible opportunity for arrest of his disease.

The contacts of cases of tuberculosis are visited by public health nurses and urged to be examined to determine whether or not they are free from infection. Tuberculin testing programs followed by X-ray examination of those who react positively to the test are carried out among selected groups of individuals. By such methods, tuberculosis may be materially decreased in the county over a period of a few years.

While venereal diseases have always occupied an important part of any public health program even greater attention is being given to them at the present time because of their tendency to increase during periods of national mobilization. Every effort is made to find cases of venereal diseases and to place these patients under treatment. When contacts and sources of such cases are located, they are encouraged to be examined to determine if they are infected. Vigorous work in this field results in a decrease in the incidence of these important diseases.

Studies in regard to deaths during childbirth, which have been conducted in a number of large cities and in several rural areas of the United States, indicate too great a loss of life due to this cause. The services of a county health department tend to bring about a reduction in the number of maternal deaths within the county.

The studies in regard to maternal mortality also emphasized the fact that a large percentage of these mothers died because they failed to realize the importance of obtaining proper care during pregnancy. In counties having full-time health departments, the public health nurse may visit the homes of expectant mothers early in pregnancy to inquire as to whether these mothers have placed themselves under the care of their family physicians. If they have not already made such arrangements, they are urged to seek medical attention promptly. With the consent of the attending physician, the nurse may then make regular visits to the home, giving the mother pertinent information relative to personal hygiene and assisting her with preparations for the baby's arrival. In some of the counties in which hospital facilities are not available, nursing service is provided to the practicing physicians for home deliveries. After the birth of the baby, the public health nurse makes periodic visits during the post-partum period, demonstrating to some member of the family proper care of both mother and baby.

In counties in which health departments come into being, a reduction in the number of deaths of children during the first year of life may be expected. This program, like that of maternal hygiene, is largely within the province of the public health nurse. Through visits to homes in which there are infants, mothers are taught the proper preparation of the baby's food and methods of promoting desirable health habits in the child. The personnel of the county health department will also promote the periodic examination of well children, either in well-child conferences or in the physician's office. In this way, physical defects are discovered early, when correction is relatively easy.

The program which I have just described will automatically operate to produce healthier school children since those who have had adequate medical and dental supervision during pre-school years will enter school without remedial physical defects. However, the plan of periodic physical examinations should be carried over into the

school-age group. It is desirable that each school child have a physical examination at least three times during the first eight years of school life. It is also highly desirable that parents be present at the time this examination is made by the health officer or family physician. Defects which are discovered in the presence of parents are much more likely to be corrected than those which are brought to light in routine school examinations without the parents' presence. A still larger number of these physical defects will be corrected if visits are made into the homes by the public health nurse, calling again to the attention of the parents the need for correction of the defects by the family physician or dentist.

The personnel of the county health department also stimulate the promotion of a more healthful environment for the school child in that sanitary inspections are made of school premises, followed by recommendations to school boards with regard to the improvements necessary to provide adequate sanitary facilities, proper lighting and ventilation. Although it is not the duty of the health officer or public health nurse to engage in teaching activities, both may be of valuable assistance to the teachers in providing scientific facts on which to base the teaching of health in the schools.

Counties in which health departments are established may expect the incidence of such diseases as typhoid fever and dysentery to be decreased. Being filth diseases, sanitation officers play an important role in their control by promoting a more cleanly environment within the county. Persons for whom a municipal water supply is available are urged to make use of this facility since water which is provided by municipalities is tested at regular intervals. Families living in rural areas are assisted with the proper construction of new wells and the reconstruction of old ones so that contamination by surface water may be prevented.

In cities and villages having a municipal sewerage system, all householders are urged to take advantage of this facility, this being the most satisfactory method of disposal of human waste. People in rural areas are encouraged to dispose of such wastes either by means of septic tanks or sanitary pit-type toilets. In cities and villages having ordinances relative to the sanitation of restaurants and cafes, the personnel of the health department are available for the inspection of these establishments. The sanitation officers check to make certain that dishes are washed properly; that food is stored in such manner that it will not be contaminated by insects or rodents; that refrigeration is properly carried out; and that food which is displayed is protected from flies. The milk supply is also protected through the inspection of dairies and pasteurization plants assuring that this most important food is produced, processed and distributed in a safe manner.

The health education program is really basic to all programs of the Health Department, since the success of each program will be dependent upon an understanding of the program by the public. Because of the program of health education, one may also expect the general health level of the county to be raised because of a higher standard of personal and community hygiene. The general health information of the people is increased through the distribution of health literature; by talks before civic groups by health department personnel; through the showing of films on health subjects; and through the development of committees throughout the county to study the health problems in their own localities and to facilitate necessary improvements.

Recognition of the need for adequate local health services as provided by county health departments is evidenced by the rapid growth of these departments in this country, the first one having been established in 1911. At present, approximately half of the counties in the United States are served by county or multiple-county health departments. The need for further expansion of these services was formally recognized by the American Medical Association in a resolution passed by the House of Delegates in June, 1942, urging the complete coverage of the United States with full-time health departments.

CULTURES AS AN AID IN THE DIAGNOSIS OF GONORRHEA

The limitations of the smear of "spread" of exudate as a source of material for the laboratory diagnosis of gonorrhea have long been recognized. In acute gonorrhea in the male, and to a lesser extent in the acute disease in the female, the examination by a skilled bac-

teriologist of a specimen which has been properly taken yields quite satisfactory results. On the other hand, the smear is not a very good specimen when it is taken from patients with chronic infections. This is especially true in the case of smears collected from the female suffering from chronic gonorrhea since her specimens contain so many other bacteria which may be mistaken for gonococci. Furthermore any gonococci which may be present in her exudates are difficult to find.

It is generally agreed that a culture yields somewhat better results than a smear when the former can be made immediately after the specimen is taken. In patients treated with sulfonamide drugs a considerable proportion rapidly become asymptomatic and smears fail to reveal the presence of gonococci. Cultures on suitable media make it possible to recover gonococci, however. In other words cultures are valuable in picking up asymptomatic carriers of gonococci whether or not they have been previously treated.

All of the earlier work on gonococcus culturing was done in clinics or under conditions which made it possible to plant the exudate on culture media soon after it was obtained. Provision of a statewide service for gonococcus culturing must take into account the fact that gonococci on plain swabs die out too rapidly to withstand shipment through the mails. A number of special media have been developed designed to permit the survival of gonococci during shipment. Since other bacteria present in the exudate are apt to grow more rapidly than gonococci, most of the media contain some substance which inhibits the growth of the former. Unfortunately, the inhibiting agent is also toxic, to some extent at least, to any gonococci which may be present. It is also well known that culturing of gonococci is much more likely to succeed in an atmosphere containing about 10% CO_2. It is difficult to provide this for field cultures.

Attempts have been made to institute statewide culture services without providing facilities for preliminary incubation of the inoculated media before shipment to the state laboratory. In New York State this has been reported as being moderately successful. On the other hand, in Massachusetts it has been found that under these conditions only one-third as many positives were detected on cultures as on smears taken from the same individuals. Our experience with cultures in Illinois under these conditions has also not been encouraging.

In one state a plan has been developed which involves the distribution of special media in tubes containing a partial atmosphere of CO_2. These tubes are inoculated by the physician who takes the specimen. He then takes them to the nearest cooperating laboratory, public or private, where they are incubated for at least 18 hours and then shipped to the central state laboratory. This procedure involves a great deal of cooperation by local laboratories for which they are not permitted to charge. It would appear that if they are prepared to do such a large part of the work, they should be permitted to complete the cultures and identify the organisms isolated.

The published results of this state's experiment are not convincing. Although a considerably larger percentage of positives was obtained by culture than by smear, the latter were examined locally apparently by persons who were not considered capable of making cultures. It is well known that the more skilled the examiner, the higher the percentage of positive smear tests will be.

In any event, it does not appear that a simple, practicable procedure for culturing gonococci from specimens taken at some distance from a laboratory has yet been developed. A great deal of investigative work is being done in many laboratories, including the Division of Laboratories, of the State Department of Public Health, in the hope of finding a satisfactory method. Some of these developments appear to be promising. The cooperation of physicians interested in this problem is needed and their aid solicited in working out some of the difficulties that have been encountered.

With the advent of penicillin treatment of gonorrhea the value of cultures may well be reexamined. Based on the experience of the U. S. Army it appears that men infected with gonorrhea who are adequately treated with penicillin rarely become asymptomatic carriers. If gonococci are still present, as shown by smears and cultures the individual continues to show sufficient discharge to enable his condition to be detected clinically. If these findings are corroborated on larger scale studies including those

on infected women, it would appear that cultures may not be necessary as a criterion of cure in penicillin treated individuals.

If that should be the case, the principal value of the culture would be as an aid in the detection of chronic cases among females, especially those accused of being sources of infection. Here again an analysis of available figures suggests that a properly taken smear may yield almost as satisfactory results as a culture. The interest evoked in improvements in the laboratory diagnosis of gonorrhea by culturing has shown the necessity of proper specimens as a prerequisite of success in this type of test. It has also brought out the fact if as much attention is paid to the collection of a specimen to be smeared on a slide as for one to be cultured, the results of the two tests are not radically different.

As most of the physicians in Illinois must rely on the results of smears at the present time, it is worth repeating the advice of authorities such as Pelouze in regard to the method of collecting material and making the slides. In the case of the male patient who is suspected of having chronic gonorrhea a specimen taken following prostatic massage is recommended. Urethral exudate may be collected from the female patient on a sterile swab and smeared or spread by rolling or rubbing it over the surface of a clean glass slide. If no exudate is found at the meatus, pressure should be applied to the ducts of Skene's glands and to the urethra in order to obtain sufficient material for examination. Specimens should be obtained from the cervix with a speculum which has been inserted without the aid of a lubricant. The mucous plug must be removed from the cervix before the swab is applied to that area.

The smears on the slides must be neither too thin or too thick. If too thick, staining and decolorizing cannot be done properly; if too thin, it will be difficult to find any gonococci which may be present. Too much rubbing of the swab on the slide should be avoided. Be sure that the slides are allowed to dry by exposure to air before they are placed together. If they stick together, it is difficult to separate them and in the process of doing so the slides are often broken or the smear is rendered unsatisfactory for staining and examination.

Submission of several smears taken over a period of days or weeks may yield a positive result in a chronic case in which a single specimen has been found to be negative. This is especially true in chronic gonorrhea of the female in which the character of the secretions of the genital tract and the bacterial flora changes so greatly during the menstrual cycle.

It goes without saying that if facilities for gonococcus culturing are available, as they are in many communities in Illinois, they should be utilized to the fullest extent. In every instance, however, the smear should also be employed as it has been shown that a number of specimens which are negative on culture yield positive smears. The two methods are complementary, not exclusive or antagonistic.

We may conclude as follows: there does not appear to be a satisfactory method now available for culturing gonococci on a statewide basis; the use of penicillin in the treatment of gonorrhea may eliminate the culture as a criterion of cure; cultures should be used to supplement smears when possible; in the absence of local facilities for culturing gonococci properly taken smears, examined by a competent bacteriologist, will prove to be almost as satisfactory as a culture.

WORKING WITH LUNG IRRITANTS CAN CAUSE CHRONIC BRONCHITIS

Chronic bronchitis can be an industrial hazard if workers who come in contact with various irritants to the lungs do not observe proper precautions, according to an article in the current issue of *Hygeia*, health magazine of the American Medical Association.

Arthur S. Webb, M.D., Controller of the DuPage County (Illinois) Tuberculosis Sanatorium Board and Honorary Director of the DuPage County Tuberculosis Association, writes that "if the worker is exposed to dust that has sand particles of small enough size to breathe into his lungs, he can develop a condition known as silicosis, in which particles of sand enter the lung and eventually cause irritation and cough."

Correspondence

SUCCESSFUL STAFF MEETINGS DESCRIBED

After two years of use at Geneva Community Hospital the type of medical staff meeting to be described has proved to be successful beyond expectations. Although no originality is claimed for the idea behind the meeting it was conceived for the first time by the author for use at Geneva in January of 1945.

A subject is selected from a group suggested by the staff. Biliary tract disease can be an example. After dividing this into anatomy of the biliary tract, congenital deviations, etiology and pathology of disorders, medical and surgical diseases with diagnosis and management; one subject is assigned to each staff man until the subject is covered. Time is limited to ten minutes. After completion of presentations, questions are accepted from the floor for answering. They are listed by the secretary. Those left unanswered or those provocative of controversy are compiled.

An authority on the subject (most of our guests have been members of the faculties of medical schools in Chicago) is invited to be guest at a subsequent meeting. The questions are sent to him a week in advance. He comes prepared to offer answers or enter into the controversy. Much information is derived by all.

Illness has been about the only reason that has kept staff members or guests away from meetings.

The pleasure of the staff and the amazing attendance records prompts this report in that other hospitals might like it.

James P. Campbell, M.D.
Wheaton, Illinois

U. S. PUBLIC HEALTH SERVICE RESERVE CORPS APPOINTMENTS

Appointments to fill vacancies in the Reserve Corps of the United States Public Health Service are now being made, and examinations for Regular Corps appointments will be held in April and May, Surgeon General Thomas Parran announced recently.

Physicians, dentists, and nurses are needed immediately for duty in hospitals, in the Tuberculosis and Venereal Disease Control programs, and in other activities of the Public Health Service.

Pay and allowances, established by law, are identical with those for medical officers of the Army. All travel expenses, including travel to first station, are paid by the Service.

In announcing the recruitment campaign, Dr. Parran stated: "For the physician, the dentist, and the nurse, the Public Health Service is unique in the variety of opportunities it offers. Not only does the person have the opportunity for outstanding service to the nation in the growing field of Public Health, but the opportunities for professional growth and development are almost limitless. There is clinical work in Public Health Service hospitals throughout the country. The importance of medical research is being emphasized today more and more and in the Public Health Service, research opportunities exist in both laboratory and the field. Institutional, public health, and administrative work is offered nurses. Whether a professional person is embarking on his career, or has already elected the field in which he wishes to specialize, the Public

Health Service, I sincerely believe, offers him much that he is seeking.

Appointments to the Reserve Corps are made on a basis of review of data furnished by the applicant. Physical examination is required.

Regular Corps appointments require appearance before a Board, and a written professional examination. Dates and places for the examination will be announced shortly.

The Service pointed out that a person receiving an appointment in the Reserve Corps immediately, may, if he desires, take the examination for the Regular Corps at the time they are held.

Those interested in either immediate appointment in the Reserve Corps, or in taking the examination for the Regular Corps, should request application forms of the Surgeon General, U. S. Public Health Service, Washington, D. C., Federal Security Agency.

INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION OF NORTH AMERICA

Gentlemen:

The 1946 Assembly of this Association will be held at the Public Auditorium in Cleveland, Ohio, Tuesday to Friday inclusive, October 15 to 18, 1946. Should you be in Cleveland at that time, we will be pleased to have you come in as our guest.

Arthur G. Sullivan, M.D.
Managing Director

DEPARTMENT OF PUBLIC HEALTH

SPRINGFIELD

TO: Physicians and Hospital Superintendents
FROM: Division of Maternal and Child Hygiene
RE: *PROGRAM FOR THE CARE OF PREMATURE INFANTS*

Despite immediate referral of infants delivered in distant communities, necessary travel time may delay admission of the infant to the Premature-Center by several hours. Therefore, in order to maintain at a maximum whatever advantages for survival the infant may have, the Pediatric Consultants for the Premature-Centers have outlined the following suggestions for interim care, which parallel closely the technic employed for newborn premature infants within the Premature-Center.

Procedures For Interim Care Pending Transportation

1. ADMINISTER CONTINUOUS OXYGEN (approximately 40%) and keep the infant in an atmosphere of about 90 degrees and 50% humidity. Heat beds for this purpose are available through your local health department.
2. ADMINISTER NO STIMULANTS in cases where intracranial hemorrhage is considered possible, especially in the instance of very small premature infants. If stimulants are indicated at all, inhalations of aromatic spirits of ammonia, or one grain subcutaneous doses of caffein with sodio-benzoates are recommended. ADRENALIN IS CONTRAINDICATED.
3. ADMINISTER NO ORAL FEEDINGS to the newly born premature infant; provide whatever fluids are essential subcutaneously.
4. KEEP THE PHARYNX CLEAR by suction with rubber bulb syringe as necessary. Do not employ a cotton or gauze swab in the oral passages. When indicated, for deeper aspiration, mild suction may be applied with a No. 8-10 French tracheal or soft rubber catheter *only in the hands of personnel particularly trained in this technic.*
5. USE ONLY LIGHT CLOTHING ON THE CHEST of the infant, to avoid any interference with respiration.
6. RESTRICT HANDLING of the infant to the minimum consistent with good nursing care. For procedure for referral of cases to Premature Centers see the Journal for September 1945.

Plan to Attend The Annual Meeting

Palmer House, Chicago, May 14, 15, 16

Original Articles

HEMATOLOGY
A ROUND TABLE

HOWARD ALT, M.D., STEVEN OTTO SCHWARTZ, M.D., and LOUIS LIMARZI, M.D.,
CHICAGO

Dr. Alt: We have collected a few questions beforehand. I do not know if there are any more to come up or not. If you wish to interrupt us at any time to ask a question, please do so. If we disagree with each other, we will try to give both sides of the problem.

The first question I have here is, "What are the indications for splenectomy?"

Dr. Limarzi will answer this question.

Dr. Limarzi: The conditions in which splenectomy is indicated are essential thrombocytopenic purpura, congenital or acquired hemolytic jaundice, so-called spherocytic jaundice and the early phase of Banti's disease.

It is important that when the diagnosis of thrombocytopenic purpura is made, that you are dealing with the primary or essential type. In this type there is a thrombocytopenia in the peripheral blood, while the bone marrow shows a megakaryocytic hyperplasia - the giant cells of the bone marrow that form the blood platelets. Splenectomy will result in a complete clinical cure if the marrow megakaryocytes are adequate in number. On the other hand, a megakaryocytic hypoplasia in the bone marrow offers a poor prognosis and splenectomy is of little or no value.

It is well to remember that thrombocytopenic purpura is observed in a number of secondary conditions such as leukemia and aplastic anemia. Splenectomy is contraindicated in these disorders. In the past cases of leukemia and aplastic anemia have been incorrectly diagnosed primary thrombocytopenic purpura and splenectomized with disastrous results. Often the poor results in such incorrectly diagnosed conditions have been used as an argument against advising splenectomy as a cure in true cases of thrombocytopenic purpura. Careful examination of the peripheral blood for immature cells and sternal bone marrow studies will aid in differentiating primary thrombocytopenic purpura from the secondary type in which splenectomy is always contraindicated.

The second group of cases in which splenectomy is indicated is congenital or acquired hemolytic jaundice. Here again one has to be sure he is not dealing with the many conditions that may cause a secondary type of hemolytic jaundice in which splenectomy is of little value. Detail studies of the blood such as reticulocyte count, fragility test, sperocytosis, etc., will aid in differentiating the true cases in which splenectomy results in a clinical cure from the secondary types in which splenectomy is of no value.

The third group of conditions in which splenectomy is of some value include the early stage of Banti's syndrome, thrombophlebitis of the portal and splenic vein, Felty's syndrome and in primary tumors of the spleen.

From an experimental and therapeutic point of view the spleen has been removed from cases of aplastic anemia and leukemia, but the results have been poor. Only in thrombocytopenic purpura and hemolytic jaundice have the results

Presented before the Section on Medicine, Illinois State Medical Society, 103rd Annual Meeting, May 18, 1943.

been excellent following the removal of the spleen.

Dr. Alt: Do you think the results are 100 percent successful in all cases of true idiopathic thrombocytopenic purpura?

Dr. Limarzi: In all cases where we have made the diagnosis of thrombocytopenic purpura and have removed the spleen we have not had any failures. We have been able to tell before hand what cases would respond following splenectomy and those cases that would not by the type of bone marrow observed following sternal puncture. We have always made sure that there were plenty of megakaryocytes in the bone marrow before we advised removal of the spleen. The megakaryocytes are the cells that form blood platelets, and if they are not present or are much reduced in number, obviously the removal of the spleen is of no value. So we can say that in all cases that we have diagnosed essential thrombocytopenic purpura we have had good results.

Dr. Alt: The next question is, "What are the best diagnostic findings, — clinical or laboratory, — for the diagnosis of hemolytic anemia?"

I will ask Dr. Schwartz to take up that question.

Dr. Schwartz: One of the most important things to ascertain is whether there is a familial history. Apparently hemolytic anemia becomes progressively more severe with succeeding generations and for this reason history is often unobtainable unless other members of the family are rather carefully examined.

The most sensitive test for latent hemolytic trait is the finding of an increased number of reticulocytes which are evidences, of course, of increased regeneration in the formed blood and indirectly of increased regenerative activity on the part of the marrow.

The fragility test has not been nearly as important in our hands as the finding of increased evidence of regeneration. Further important evidence is found in the increased pigment metabolism as indicated by increased amounts of bilirubin in the blood and increased amounts of urobilinogen of the urine. The spleen is in most instances considerably enlarged, the size varying almost directly in proprotion to the severity and duration of the disease.

Dr. Alt: I think the confusion that comes up with hemolytic anemia frequently is whether it is the acquired type or the familial type. There seems to be some disagreement as to the effect of splenectomy in the acquired type. Just in the last week I came across a patient with hemolytic anemia, a male of twenty-seven whose father had jaundice all his life and had a splenectomy. This boy had a hemolytic jaundice, but the fragility test was normal. The case was suggestive of familial hemolytic anemia but there was no spherocytosis.

Would you advise splenectomy in a patient with hemolytic anemia who does not have spherocytosis?

Dr. Schwartz: I think if he had the other evidences of hemolytic anemia and the process were acute in spite of negative fragility test, it might be well to advise it.

Dr. Alt: "Is administration of acid of any value in the treatment of primary anemia?" That is a question that comes up very frequently. Students are sometimes taught that acid should be given to all patients with pernicious anemia, and others are taught it is of no use. I think we can say definitely that hydrochloric acid by mouth has no effect on the anemia in a pernicious anemia patient. Of course these patients have achlorhydria. But about 20 per cent of all adults past sixty have achlorhydria and most of them get along quite well, so the acid is of no use in maintaining a red count. Liver has to be given just about as often whether you give acid or not.

I think the answer is that acid should be given for gastrointestinal disturbances possibly secondary to the achlorhydria but is of no use for the anemia.

I would like to bring up also the question of achlorhydric iron deficiency anemia in adult women. Again the question of acid therapy comes up and because it is pretty definitely established that acid is necessary for the proper absorption of iron in the diet, we frequently conclude that acid should be given as part of the therapy. Here again there is no proof that a patient will do any better with acid than without it while receiving adequate doses of inorganic iron by mouth.

With an ordinary diet it has been shown that if the diet is adjusted to an acid pH, an individual with anemia will absorb more iron than if given in an alkaline pH. There we are dealing with physiological quantities of iron in the diet, 10—15 mg. daily. When two or three hundred

milligrams of inorganic iron are given daily, the addition of acid causes no significant increase in absorption.

So again in the treatment of iron deficiency anemia with achlorhydria, the acid is not necessary.

Do you agree with that?

Dr. Limarzi: Well, we see quite a few pernicious anemia patients and many of these patients have been treated elsewhere. They always want to know if they are to take their acid or not. As far as pernicious anemia is concerned, we do not give it, of course, unless the patient has a diarrhea or something like that. But many patients seem to think that they feel better when they are taking dilute hydrochloric acid. We do not in any way prohibit them from getting it but as far as the hemopoietic effect, it does not have any.

Dr. Alt: I do not know if I understand this question: "What controls the rate of blood formation and its quality and usefulness?"

Dr. Limarzi: Who asked this question: "What controls the rate of blood formation and its quality and usefulness?"

Dr. Brown: When a person loses blood, — say a woman at the time of her periods, — at an excessive rate, what tells the hemopoietic system to step it up and put out more cells?

Dr. Limarzi: That will all depend upon the status of the hemopoietic organs. For example, there are many cases of so called aplastic anemia in which the hemopoietic organs are hyperplastic. The question comes up, what are you going to do to stimulate these bone marrows and get these cells out in the peripheral blood? Unfortunately, there is not any drug that will do it in most instances. On the other hand, if you are dealing with a microcytic anemia, iron would be indicated. In a case of pernicious anemia, we are dealing with a hyperplastic bone marrow and liver extract would be indicated. Therefore we do know that the antipernicious anemia factor found in liver extract is essentially for transformation of a megaloblastic bone marrow to a normoblastic one and that iron is needed for the maturation of the normoblasts to normal red cells. Oxygen and probably vitamins and several minerals like copper are necessary for blood formation. It is well to remember that there are many blood disorders in which none of the known anemic factors are of any value.

Dr. Brown: What is the mechanism in the body that makes more blood formation? How does the blood know when to form more cells?

Dr. Limarzi: Well, the blood itself does not form cells, Mr. Chairman; it is the blood-forming organs that form cells and just what is behind the blood-forming organs that manufacture these cells we do not know.

Dr. Schwartz: The probability is that there is a certain amount of oxygen which is apparently the optimal amount under which the bone marrow produces its cells. Anything that decreases or increases that oxygen tension by changing the oxygen-carrying capacity of the blood will act as a stimulant or a depressant. For that reason we see that in a congenital heart disease where there is an arteriovenous shunt and the oxygen-carrying capacity of the blood is lowered secondary polycythemia is a result. This seems to be in line with the idea that perhaps oxygen tension is the ultimate stimulus for blood formation.

Dr. Alt: There has been an interesting bit of research in the last six months on that point. It was shown that high oxygen tension depresses blood formation in sickle cell anemia.

The next question will be answered by Dr. Schwartz. "Give the best diagnostic findings, clinical or laboratory, for the diagnosis of pernicious anemia."

Dr. Schwartz: The one best diagnostic test for pernicious anemia is megaloblastosis of the marrow since any of the other things which we ordinarily think of as characterizing pernicious anemia may be present in other conditions, or may be absent in pernicious anemia. Of course theoretically we would like to have a macrocytic anemia with typical red cell changes, a leukopenia, granulopenia and thrombopenia, but all these things may be absent in relatively mild cases or in cases primarily with cord symptoms. By the same token, the absence of hydrochloric acid may be present in other conditions and may be absent in pernicious anemia; so that ultimately the best and only certain way to diagnose the doubtful cases is by demonstrating the typical megaloblastic changes in the bone marrow.

Dr. Alt: In an adequately treated case of pernicious anemia, the bone marrow is normal, is it

not? How low do you think the red count would have to be before the bone marrow would give a typical diagnostic pattern?

Dr. Schwartz: We have punctured the sternum in cases where the question came up whether the patient had the cord changes secondary to pernicious anemia even with blood level as high as four or four and a half million red cells and found, although not typical megaloblasts, sufficient suggestive evidence to make us believe that those were cases of pernicious anemia and who subsequently, on liver therapy, showed considerable and very significant improvement.

Dr. Limarzi: The point here is brought up that you occasionally see a megaloblastic type of pernicious anemia in pregnancy in which the peripheral blood is not macrocytic; in fact, the peripheral blood may be microcytic. A number of these cases have been seen by the doctors, and because the cell has been small, they have been given iron. These cases will not respond to iron. So that in such cases, one will have to be sure (these cases are not very common) that he is not dealing with a megaloblastic bone marrow. You must remember that although in all cases of true Addisonian pernicious anemia you get a macrocytic anemia, you do get cases of megaloblastic anemia of pregnancy in which the peripheral blood shows a small cell. Treatment consists in giving adequate amounts of liver extract.

Dr. Alt: The next question: "Are sulfa drugs contraindicated in the presence of a marked leucopenia?"

This question comes up very often. In a patient with a very severe infection and a possible agranulocytosis, one wonders whether to go ahead and give maximum doses of the sulfonamides or not. I think we are coming around more and more to the idea that these are the patients that need sulfonamides more than any other. Because the neutrophils are very low, infection spreads rapidly and is more severe.

Just a few days ago I saw a patient with a white count of 1500 with no granulocytes — she had had rather heavy x-ray therapy over the pelvis and in addition had had arsenic therapy for syphilis. Her temperature was 103° for three days. Maximum doses of sulfa drug were given and in three or four days the granulocytes started going up. The patient made an uneventful recovery even while receiving large doses of sulfonamide therapy so I do feel that sulfa drugs should be given in adequate doses. Although leukopenia can occur secondary to the administration of sulfa drugs rather early, it occurs much more commonly after a rather large amount has been given over a longer peroid, usually after seven to ten days, and after forty or fifty grams of the drug have been given.

Dr. Limarzi: I think it is true that the sulfonamides are not contraindicated because you have a leukopenia. For example, there are a lot of diseases that do have a leukopenia to which you can give all kinds of sulfonamide drugs and not affect the blood and bone marrow. We have tried over and over, experimentally, on cases of Felty's syndrome and leukemias, etc., and it has no effect whatsoever.

But you must be careful in the case that had a normal count, to whom you give sulfonamides and your count begins to drop. Here is a very important point in giving sulfonamides. We do not very often see leukopenia following sulfonamides. The most important action of the drug has been the hemolytic action and then the neutropenia second and the thrombopenia third.

In the neutropenia following sulfa medication recovery, in our experience, could be correlated with the status of the bone marrow. In those cases with the myeloid hyperplasia in the bone marrow and a monocytosis in the peripheral blood recovery, in most instances, is spontaneous. On the other hand, where the bone marrow is aplastic those cases go on and die.

Dr. Alt: Dr. Limarzi, will you answer this question?

Dr. Limarzi: The question here is: "What is the relationship of the macrocytic anemia following toxic sulfa therapy to the liver?"

Well, if you get a hemolytic anemia, for example, following the sulfonamide drugs, you get a reticulocytosis. The reticulocyte is a larger cell and you get a pseudomacrocytosis. Just what relation that has to the liver I do not know definitely but I know a number of years ago Dr. Paul did some work on the effects of sulfonamide and he showed that in the early effect of sulfonamide you do get a macrocytosis with very few reticulocytes, and that was the first and early indication of sulfonamide toxicity.

On the other hand, of course if you give plenty of sulfonamide and get a hemolytic anemia, you

will get a macrocytic anemia which is due to reticulocytosis. What relation that has to the liver I am not certain.

Dr. Alt: Dr. Schwartz has a question.

Dr. Schwartz: "How do you differentiate between agranulocytosis and the aleukemic phase of lymphatic leukemia?"

The points of differentiation are that in agranulocytosis the red count is unchanged; there is a history of having taken some form of pyramidon or amino-pyrine or some related drug, the onset is very acute without any prodromal symptoms, and no other changes are present in the blood such as thrombopenia, which would be present in a chronic form of leukemia such as lymphatic leukemia.

The difficulty of course is that lymphatic leukemia might also be acute and under such circumstances the symptoms would not be of very long duration. But here we still expect to find some peripheral lymphadenopathy. The ultimate differentiation revolves around the findings in the marrow where, with the lymphatic leukemia, there is invasion or displacement by lymphoid cells, whereas in the agranulocytosis there is the typical crowding of the marrow with granulocytes with an absence of more mature forms.

Dr. Alt: I have two questions here that are somewhat inter-related and we might say a word about these because I think they are of considerable current interest. One is, "What is the time interval between irradiation in myelogenous leukemia and the maximum therapeutic response?" The second one is, "What is definitely known concerning results of the use of radioactive phosphorus in the leukemias?"

As to the first question, it occurred to me some five or six years ago that rather than treat chronic myelogenous leukemia with very large doses of x-ray every second or third day until the white count comes down from two or three hundred thousand to ten thousand and then sending the patient away and losing contact with him, it would be better to give small doses at regular intervals so that a continuous effect would be exerted on the bone marrow. At first we gave x-ray over the torso, but later used total irradiation exclusively. We found that the average patient with myelogenous leukemia could take thirty to thirty-five roentgen units without reaction.

These patients have been followed now for a number of years and it has been found that by giving treatments at intervals of one to three months, it is possible to keep the white count in the range of 15,000 to 30,000. Contrary to what the books say, we pay considerable attention to the white count in treating the patient with chronic myelogenic leukemia.

When the white count starts going up and getting above twenty-five to fifty thousand, there is usually an increase in size of the spleen, whereas if the white count is kept in the range of ten to twenty thousand, the spleen usually remains small over a considerable period of time. Murphy advocated this method of treatment in an article in the J.A.M.A. about a year ago.

We are not claiming that life is prolonged by this method of treatment but the patients feel fairly well and are able to work every day for long periods. Those that do not like to come in continually for x-ray therapy are given small doses of Fowler's solution for a period of three weeks at a time. If the Fowler's is continued over a longer period, toxic effects are quite common. A rest period of six weeks is allowed between courses of Fowler's solution. Total irradiation is given during this time if indicated.

Several years ago, shortly after the cyclotron was invented, radioactive phosphorus was used in the treatment of leukemia. It has stood the test of time and is extremely effective in the treatment of this disease. Those that have used it do not claim that it does much more than x-ray treatment in the treatment of chronic leukemia. However, it is a more logical method of giving irradiation.

The hemopoietic cells store radioactive phosphorus selectively. By taking a dose every three to six days, patients are under continuous therapy, which is somewhat analogous to the way we are treating them with x-ray, i.e. giving a small dose at set intervals. Radioactive phosphorus has also proved very effective in the treatment of polycythemia vera.

So many relatives of patients with acute leukemia come to the doctor and want to know about the use of radioactive phosphorus. Dr. Warren of Boston and several others have written about the treatment of leukemia with radioactive

phosphorus, and I think there is a general agreement now that in most cases the treatment is harmful. It has no more to offer than x-ray therapy which we know seldom helps in the acute and subacute leukemias.

It is very difficult to get radioactive phosphorus as there are important uses for the cyclotron in the war effort. Just about the time we were to receive some radioactive phosphorus, the Pearl Harbor attack came and shipment was stopped.

Dr. Limarzi: We have been using arsenic. It seems that doctors have forgotten about Fowler's solution in the treatment of myeloid leukemia. We have used it in several cases and found it does work, but we eventually have to come back to the x-ray treatment in chronic myeloid leukemia.

In lymphatic type of leukemia, we do not like to give x-ray treatment unless it is absolutely necessary because eventually you get to a stage in this disease in which the process becomes x-ray resistant. The chronic lymphocytic type of leukemia should be differentiated from the acute small cell type of leukemia. The latter may be confused with the chronic small cell type of lymphatic leukemia. X-ray is contraindicated in the acute leukemia.

There is not much more to add to the treatment of leukemia at the present time.

Dr. Schwartz: I am on quite the other side of the fence from where Dr. Alt is regarding the treatment of leukemias. I suppose my experience happens to be colored by the type of patients we see at the Cook County Hospital. At County unfortunately we see the patients who have been previously treated by other doctors and we get them when there is not anything else that can be done for them. In the last two or two and a half years, we have practically abandoned x-ray almost entirely except as a means of very last resort. We nurse our patients along with transfusions, with Fowler's and anything else we happen to think of or can get our hands on, just as long as we can stave off using x-ray. This we use only in the final phase where we feel there is nothing else that can possibly be done.

Looking back over our results, I do not think they are any better than Dr. Alt's because our patients die, too, but we seem to be able to maintain them without x-ray in as good a state of health, starting with a poorer quality of patient in the beginning, than we ordinarily do in private practice.

We have gotten extremely conservative. Of course it will be a few more years before we can really go back over our results and see whether in the long run our treatment gives us results comparable with Dr. Alt's.

Dr. Limarzi: There is a question here: "What are the types of anemia that may occur during pregnancy?"

I covered that, I think, in saying that it is well to remember that during pregnancy you have three types of anemia. You get the so-called physiological anemia of pregnancy in which the anemia is normocytic in type and that type of anemia will take care of itself following delivery of the child. The second type of anemia is the iron deficiency anemia that occurs during pregnancy. And the third type is the type that I said a few words about before, the so-called pernicious anemia of pregnancy.

It is well to remember that in the pernicious anemia of pregnancy the anemia may be microcytic in type rather than macrocytic in character. The diagnosis can be cleared up by bone marrow examination which will reveal a megaloblastic type of erythropoiesis in spite of the microcytosis in the peripheral blood. Iron treatment is of no value in such cases. These cases must be treated with adequate amounts of liver extract. Complete recovery follows the delivery of the child.

Dr. Alt: Do you see pregnant women with a mild macrocytic anemia due to protein deficiency? Dr. Bethel described this syndrome several years ago. I think he found that 12 per cent of pregnant women showed this phenomenon.

Dr. Limarzi: We have not seen that very frequently. Most of our anemias have been so-called normocytic anemias. As far as the treatment is concerned, in dispensary patients it is very hard to follow the treatment, but we have never had that high an incidence of macrocytic anemia that occurred during pregnancy. Have you, Dr. Schwartz? Have you seen macrocytic anemia occurring in pregnancy?

Dr. Schwartz: We see them so seldom that when we do, we get very excited but usually they

turn out to be young cases of pernicious anemia.

Dr. Limarzi: The so-called pernicious anemia of pregnancy usually takes care of itself following delivery. We followed a case for almost five years who had a pernicious anemia of pregnancy, and following delivery of the child she has never required any liver extract.

In both of the cases, we have seen plenty of acid in their stomachs, differentiating them from the true Addisonian type of pernicious anemia.

Dr. Alt: We have covered all of the questions that have come up. I wonder if there are questions anyone would like to ask from the floor. If not, the round table is concluded.

FUNCTIONAL NERVOUS DISORDERS

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The purpose of this paper is to offer a brief discussion of an obscure but extremely important subject; viz., the functional nervous disorders. Before consideration is given to this particular topic a few broad statements are offered with the aims of showing the importance of the disorders and of orienting ourselves in respect to the place they occupy in the field of medicine.

We could not live without the nervous system. The same statement could be made in regard to the other important functional units of the body. but one might add that it is only the nervous system that makes possible an awareness of living without which one might as well be dead.

Both World Wars have served to focus attention on disorders of the nervous system, as well as on other aspects of medicine.

Bennett[1] states that in drafting 10 million men, over a million were rejected because of neuropsychiatric handicaps although most of these individuals had been making fairly satisfactory adjustments in civilian life. Bennett adds that of all casualities, neuropsychiatric disabilities have constituted about a third of the entire number.

Major S. A. Sandler[2] states that in the first World War each psychiatric casualty cost the government $30,000.

A few years ago Neil Dayton[3] estimated that of the approximately 1,000,000 hospital beds in the United States, about half were in psychiatric wards or hospitals. This does not mean that there are as many psychiatric cases during a year as there are of all other hospital cases combined since whereas the psychiatric bed takes care of about 1.3 cases during a year the general hospital bed is used by 23 different cases during the same period. The disparity is, of course, due to the longer duration of nervous illness and to the large number of chronic psychiatric cases many of whom reside in hospitals for years. Yet the fact that a patient may suffer from a mental disorder for years lends greater, and not less importance to the subject of the neuropsychiatric disturbances. Then too, we should remember that of the total number who display neurotic symptoms by far the greater proportion are not in hospitals.

The War has not resulted in the discovery of new types of nervous disorder, but has served to bring into clearer focus some of the functional psychiatric disturbances. One has to avoid dogmatism in speaking of the cause of mental diseases, but ideas about the subject are becoming more clear as time passes and both wars have aided in this regard. I submit that this is the most important factor in the study of psychiatry.

Obviously only a brief survey of the subject of etiology of mental disorders can be given in this paper. Perhaps it is well to start with an abreviated classification which divides the psychiatric disturbances into 1. Toxic, 2. Organic, and 3. Functional (or Psychogenic).

The toxic psychoses may be divided into exogenous; those due to agents taken into the body such as alcohol and the narcotics, and the endogenous due to infectious conditions. These may involve the brain structure directly in an inflamatory condition, e.g. encephalitis, or cause a delirious-like condition in which the brain cells are not the seat of any very obvious change.

The organic psychoses occur as a result of actual destruction of brain cells. One thinks of senile dementia, cerebral hemorrhage or thrombosis, brain tumor, and numerous other conditions. A number of such illnesses as some of the alcoholic psychoses, syphilitic meningo-encephalitis (paresis) and encephalitis of other types may begin as toxic or infectious conditions, but

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end by destroying the nervous elements thus producing organic disorders.

I have given a classification which, although oversimplified, permits a comparison with medical conditions in general. We meet toxic and organic diseases in fields outside of psychiatry, but when the functional (i.e. psychogenic) disorders are considered we find something which non-psychiatric fields do not cover. It is true, of course, that mental cases may present some symptoms similar to those found in general medicine. On the other hand, infectious, organic, traumatic and deficiency state diseases may well bring into being latent neurotic or psychiatric manifestations. Yet, basically, the etiologic factor of the functional neuroses, and presumably of the so-called functional psychoses, differs from that found in the ordinary medical or surgical condition. White and Jelliffe[4] have stated that whereas; "Bodily disease is the result of conflict between the individual and nature, the neuroses are the result of conflict between the individual and society."

How then does the neurotic get that way. First, we may visualize the development of the ordinary individual. He is born with more or less potential stability and immediately and until the day of his death, is presented with a succession of situations with which he must cope.

The question might be asked, "Why must we cope with situations." The answer lies in the fact that there are drives, innate or developed within us, that need be gratified in order that we derive satisfaction rather than dissatisfaction. The sensuous desires are well known but in addition we wish to be well thought of by others, we want money, clothing, position, etc. We want particularly to measure up to those standards which we have more or less unconsciously adopted from among the many standards which exist.

If it were possible to gratify all of our wishes without effort we might well avoid all the neuroses and it is probable that we should cease to advance. This is not to say that neuroses are worth while but merely that they are one of the by-products of a life of stress which we can not avoid. That is to say, we cannot avoid stress and at least some of us, have not yet learned to avoid the neuroses.

A very definite part of life is to evade the hazards which gratification may present. If a youth sets his heart on standing first in the class and then fails to do so, his disappointment will be in direct proportion to his ambition to succeed. Success along particular lines may be possible only if one takes a chance in being thwarted or even disgraced. He may succeed at the cost of scruples which he cannot overcome, thus laying the ground work for conflict.

Some situations will be simple and some complex. There will be pleasant experiences and many that are disagreeable, threatening or actually painful. If the individual is fortunate, the situations will not be too difficult for him to cope with and his training by parents, relatives, teachers and playmates do much, either to help him, or to prevent him from learning to adapt. In the latter instance he is not made more ready for the next experience but less so. In this case, he may not face his next problem frankly, but resort to some of the unhealthy modes of reaction, e.g. anxiety, tantrum, professed bodily ailment, day dreaming, resentment or some other behavior which helps him to evade the consequences of meeting the situation squarely. His evasion may relieve him temporarily but obviously fails to train him to meet future difficulties, and it does not make for a stable and cheerful make-up since there is apt to be a vague sense of having failed to measure up to the responsibility which his age and position demand of him whereas, meeting a situation squarely leaves a sense of satisfaction.

I have spoken of the stress of meeting a difficult situation. This must be considered as a relative matter. I mean by this that a child or youth who has been fortunate in being permitted to solve his problems as advancing age brings increasing complexities, finds the next situation not too difficult. A child who has not met past problems squarely and frankly is not so well able to deal with present situations satisfactorily and may evade them. In this way a habit of harmful reactions develops which in time may constitute a neurosis.

A very simple example might be that of two school boys called upon to deliver addresses to a group. One finds the task easy because he has met similar but smaller tasks in the past. The other has evaded such efforts previously and now may not be able to dodge this one except

by developing an alleged illness on account of which he takes to bed, thereby saving himself from the ordeal. The example given is warranted unless one takes it too literally since I suspect most school children are now trained so that speaking before a group is not too difficult.

There is one feature in such reactions that merits careful consideration. We are prone to think that we clearly perceive all of the motives for our actions. This would indicate an ability to think objectively which a little consideration will demonstrate is not the case. In the illustration given the child might consciously fake an illness (malingering) but might also be convinced that he really was too ill to do the task from which he shrank (psychoneurotic reaction).

It is difficult to outline the development of personality since every experience, and each moment of every experience, has its influence on the pattern of the make-up of the child.

There is such an infinite number and variety of experiences that no two individuals develop quite the same make-up and no one person always behaves just the same in similar situations.

No one always reacts in an entirely adequate manner. The world is not divided into two groups; those who react adequately and those who manifest psychoneurotic symptoms. All of us behave occasionally, at least in small measure, as a psychoneurotic would do. When the need for performing a difficult task seems not worth while, or if the situation is very much more complex than any we have faced hitherto, or when we are fatigued or weakened, some of the symptoms of neurasthenia, hysteria, anxiety state, etc., may develop. At such time the degree of control of feelings, and ability to think objectively, which have been developed in the past make it more or less possible to regain a sane point of view and overcome the psychoneurotic tendencies.

Many different habits of reaction are formed. Some of these favor future well-being and some do not We are not yet wise enough always to know whether we are doing one thing or the other but gradually more is known in regard to the matter.

It seems clear that the habit of a parent to react to situations by becoming anxious or suspicious may inculcate in the child a tendency to react in a manner similar to that of the parent. An overly protective or indulgent parent does not aid the child to develop self-reliance and self-control.

The work done in recent years relating to the development of psychoneurotic-like reactions in animals suggests a fruitful field of research.

Some of the results of this work indicate:

1. That it is as easy to develop a harmful type of reaction as one that is beneficial if one sets out to do so. The human does not always consciously try to develop helpful mental habits but is more or less led to do so by what has succeeded in the past and is now favored by custom, and by a vague agreement as to the best way of getting along in a civilized community.

2. That a habit of reaction once formed is not easily changed.

3. That even in the lower animals the same training does not result in the same degree or kind of symptoms, in different animals, even in those of the same age and species.

4. That the psychoneurotic-like symptoms; restlessness, fear, incoordination, trembling, increase of heart action, etc., are brought about by an alteration in situations such as prevent established reactions. The animal is trained to expect a certain sequence of events and then that sequence is interrupted. The sequence that is expected does not occur. The animal is confused and thwarted.

Here one sees symptoms developing directly as a result of meeting a situation purposely made difficult, and not due to physical factors as this term is commonly used. It is true that physical changes occur, since the functioning of the nervous system is a part of a reaction of the whole individual, the autonomic system particularly being associated with changes in respiration, the cardiovascular mechanism, secretion, etc.

In the human we see the development of psychoneurotic symptoms when the individual is confused and thwarted but whereas in the experimental animal interruption of most any kind of established action is apt to lead to disorder of function, the human is prone to show such symptoms when urge, ambition or other drive runs counter to fear, conscience or other inhibitory factor. Thus a woman who has not developed the interest or energy to care adequately for her children unconsciously makes more of intercurrent illnesses, menopause, etc., than an-

other who had developed a mature attitude which is satisfied only by a willingness to sacrifice to the limit of her strength.

There are two points to be stressed here. The first is that there is a conflict. One part of the psyche tends toward one type of reaction, viz., the attention to, and sacrifice for, the children in accordance with what the mother knows to be the approved procedure. But there is also a desire not to sacrifice for the children because this means effort and the denial of doing other things instead. The mother may be able to solve the problem by the assumption of illness. If she cared nothing at all for the welfare of her children or for the approval of society there would be no conflict and no neurosis.

The other point is that the conflict is not a conscious one. This is not easily accepted by many. In an earlier paragraph reference was made to the fact that a little consideration would indicate that we are not always objective. We are swayed by personal bias. Among those of us who have at times foregone some gathering or other activity because of illness isn't it possible that when the activity was the more desirable the tendency to play down our symptoms became more marked, and vice versa. True, most of such reactions are frankly appreciated for what they are but occasionally they are not frank but are unconscious efforts to grasp that which we want, or to avoid an unpleasant situation.

With the foregoing in mind one understands the statement of Thomas[5] when he refers to "the generally accepted concept that a psychoneourosis is a nervous disorder dependent on complicated mechanisms of the mind involving unconsicous conflicts. . . . "

It should be emphasized that one cannot resort to such reactions, or decide against invoking them, as whim dictates. That is the reason for giving some space to the development of the child as was done in the forepart of this paper.

I do not want to say too much of the war experience since that had best be left for someone who has had first hand knowledge of the subject. Yet some of the statements of army and navy physicians are applicable to peace time as well as war conditions.

Sandler states that, "It is believed that the neurosis in the soldier is a recapitulation of his emotional insecurity and exaggerated dependence, which was a characteristic of the individual soldier's infancy and childhood."

Combat may precipitate a nervous disorder but Schwab and Rochester[6] state that those psychoneurotics with combat-precipitated neuroses showed less pre-enlistment instability than did the group with psychoneuroses developing in non combat areas in the rear.

This paper has been concerned with etiology rather than treatment but a brief reference to the subject is worth while. I will pass over the therapy of the established case of psychoneurosis except to say that the experience of the psychiatrists in our armed forces adds a brilliant chapter to the subject.

Prevention is an even more important angle and I may quote the following from Blain, Hoch and Ryan[7]. "Prevention of emotional illness is aided by an understanding of one's self, the frank facing of abilities and disabilities, acceptance of unalterable situations, good physical health, and adequate and satisfying outlets for the emotions and abilities. Prevention is aided by adhering to a daily schedule which should include work (purposive effort), rest, sleep, physical exercise, relaxation and companionship. These must bear proper relation to each other and be checked frequently. A philosophical attitude helps."

One may add to the foregoing statement that all this must be done without training the subject to be self-conscious of his mental reactions. In fact such pronouncement must become a common basis for living and not a mere procession of words.

A helpful point of view is to regard the various psychoneurotic manifestations as indications that the patient has failed to mature. He does not take a broad and objective point of view, he does not develop control over his emotions, and his reactions are predicated on the more immediate aspects of a situation rather than the larger and more remote consequences of his behavior. Briefly, the patient regresses to an immature type of attitude and behavior.

There is an opprobrium felt toward the psychoneurotic which is not apt to change the present situation since it places the patient on the defensive. If, in time, the concensus of opinion is that all psychoneurotic behavior is immature

one can hope for a definite change for the better. Even though the conflict involved be more or less unconscious, the behavior which results will be less tolerated by the patient himself if he feels it marks him as one who has not been courageous enough to grow up.

REFERENCES

1. "War Nerves", A. E. Bennett; Dis. Nervous System. 6: 43-48, Feb. 1945.
2. "The Army and the Maladjusted Soldier", Major S. A. Sandler, M.C., AUS. Mil. Surgeon, 96: 89-93, Jan. 1945.
3. "New Facts on Mental Disorders", Neil Dayton. C. C. Thomas, 1940.
4. "The Modern Treatment of Nervous and Mental Diseases", White & Jelliffe, Lea & Febiger, P. 334, 1913.
5. "The Use of the Term Psychoneurosis", Lt. Col. Jackson M. Thomas, M.C., AUS, New England Journal of Medicine, February, 1945.
6. "Relationship of Stress, Breakdown, Instability & Recovery in Men with Combat & with Noncombat Neuroses, Com. R. S. Schwab, USNR, and Lt. Com. H. Rochester, M.C., USN War Medicine, 7: 12-18, Jan. 1945.
7. "A Course in Psychological First Aid and Prevention", Daniel Blain, Paul Hoch and V. G. Ryan, Am. Jr. of Psychiatry. Vol. 101, No. 5, P. 629, March, 1945.

PERIANAL URTICARIA

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All too often an inconstant itching disturbance about the anus is considered an essential pruritus ani and dismissed with a prescription for a soothing ointment without the thought that it may be urticaria or angioneurotic edema. Urticaria, hives or nettle rash as it is variously called is one of the frequent but evanescent itching affections of the genitals and anus which may be mistaken for some other type of dermatosis because its varying degree of itching, tingling or smarting are representative of all pruritic lesions and if the characteristic wheals are absent at the time of examination there may be no evidence of any disorder. However there is usually a clear history of an eruption which comes and goes.

Symptoms: About the anus there are two types of urticaria; the acute form which is commonly due to some disturbance of the upper intestinal tract by an irritating ingested material, and the chronic or recurrent type which may be neurogenic or often is of undiscoverable origin. Both types are characterized by the eruption of wheals which are changeable in form, distribution and color. They are evanescent, usually existing for only a short time, but new bullae may develop as the older ones disappear. On the labia in women and about the anus in both sexes they may appear as circular welts the size of a coffee bean or the finger nail. More frequently they appear as linear elevations an eighth of an inch wide and radiating out from the anus or fourchette an inch or more. The lesions are blanche white or rosy-red and bordered by a hyperemic areola. There may be but one or two bullae or there may be several.

Patients are quite vague in describing the subjective sensations, probably because or the variability of sensitiveness of individuals. One person may speak of an itching, burning, crawling or pricking sensation, and others of the swelling and soreness of the parts, but all remark that the attack comes on suddenly with or without apparent cause and as promptly disappears without leaving any after effects other than the scratch marks. An acute attack following indiscretions in eating or drinking will last but a few days.

The chronic or recurrent form and the neurogenic type which may follow nervous strain or an hysterical outburst may be characterized by repeated development of new lesions. If the wheals become hemorrhagic their color changes to purple. Such attack may last for months or years. The angioneurotic type is often associated with confusing sharp abdominal pains resembling intestinal obstruction, appendicitis, volvulus or strangulated hernia. The hysterical variety may be accompanied by sensory disturbances but not by gastrointestinal attacks.

Etiology: Only by a careful history including a review of all etiologic factors is a diagnosis sometimes possible. The urticarial wheal is a reaction in the skin produced by a toxic substance acting upon the vaso-motor nerve system. The irritant may arise from without or be produced reflexly within the body by a visceral irritant of the digestive or urinary tracts. This may be so slight a shock as undressing and getting warm in bed in certain sensitized individuals.

1. External contacts which may be causes are toilet powders and waters, soaps and other substances used in enemas, and chemicals used as contraceptives and vaginal douches.

2. Ingested foods such as eggs, cheese, pork, sausage, fish, lobster, clams, caviar, strawberries, oatmeal, pickles, nuts, chocolate, canned fruits, meats or vegetables. Any article of diet that is

*Died June 30, 1945

indigestible to that particular individual may provoke an attack. The hypersensitiveness on the part of an individual to certain foods may be inherited or acquired. Acute urticaria may also be due to toxic substances developed by decomposition in foods. Intestinal parasites, through their action on the ingested foods are said to produce urticaria.

3. Many drugs may cause urticaria. Among these are quinine, codeine, aspirin, the salicylates, coal tar products and barbital compounds, balsam and turpentine. The local application of any of these in lotions or ointments may induce urticaria.

4. Psychic disturbances such as fear, anger, remorse and shame may produce urticaria sometimes very localized.

5. Systemic diseases such as malaria, hepatic disorders, and prurigo are associated with urticaria.

6. Disturbances of the glands of internal secretion, especially the thyroid and ovary quite occasionally are causative factors. Many women with menstrual irregularities suffer with perineal pruritus and urticaria during their menstrual tension.

7. Bites of lice, stings of mosquitoes, fleas, bed bugs and caterpillars may produce just as definite a welt and or welts as do ants, wasps and bees. existing in the large mental institution felt the

8. Foci of infection sometimes are important.

Pathology: The urticarial wheal is a circumscribed edema of the corium due to a toxin either circulating in the blood or deposited locally and acting on the vessel walls.

Diagnosis: The diagnosis of perianal or perineal urticaria may be quite difficult because of the rapidity or evolution of the lesions, their ephemeral character, and the peculiar sensations they produce. Not infrequently the diagnosis must be made from the history and the possible relics of the disorder, when at the time of examination no active lesions are present.

Treatment: The first indication obviously is diligent search for and removal of the cause when found. This includes a thorough study of the nervous system as regards any states inherited or acquired. Examination of the urine for evidences of imperfect elimination is very important. A minute physical examination of the patient and his history, particularly in regard to the character of food, drink, and medicine taken, his habits of living, his occupation, clothing and mental state.

Acute cases should receive a brisk cathartic to empty the stomach and bowels of toxic material to be followed with a light diet, of about one half his usual portions, for several days. During this time sodium or magnesium salts or cathartic mineral waters should be given.

The alkaline bath, which contains sodium carbonate, sodium biborate or magnesium sulphate in strength of 6 ounces to 30 gallons of water is beneficial. Sometimes a demulcent bath, made by adding starch, gelatine or bran acts well.

Chronic and angioneurotic urticaria is very difficult and unsatisfactory of treatment. Where anemia and nervousness are evident iron, strychnine and a high calcium diet are indicated.

HIGH — CALCIUM DIET

115 Carbohydrates, 80 Grams Protein, Fat 70, Calories 1,410

Food	Gram Weight	Household measure
Cereal (cooked)		
Bread (whole grain)	45	1½ slices
Butter	30	3 squares
Salad dressing with oil		
Milk (skimmed)	1000	5 glasses or 1 quart
Cream, 20%	15	1 tablespoon
Meat (lean)	120	2 servings (4 ounces)
Bacon	10	2 slices crisp
Egg	50	1
Vegetables 3%	300	3 servings (1½ cup)
Vegetables 6%	100	1 serving (½ cup)
Fruit 5-10%	300	3 servings

This may be supplemented with calcium gluconate gr. 15 three times daily, parathyroid, viosterol or peptone. The condition is definitely an allergy but attempts to desensitize the individual rarely are successful. Autoserotherapy has seemed to accomplish results in a few cases.

An antipruritic lotion that I have found effective though tedious to make consists of four ounces of corn starch mixed with cold water to form a paste is then boiled in one quart of boric acid solution until reduced to one pint. As boiling is completed one dram (4.) of zinc oxide and two drams (8) of glycerine are added. The mixture is allowed to cool slowly. When applied to irritated surfaces it gives prompt relief.

TREATMENT OF THE CONVULSIVE STATE AT THE ILLINOIS SECURITY HOSPITAL

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This is a preliminary report on the therapy of the Convulsive State at the Illinois Security Hospital. In a previous report, it was found that epileptic patients are subject to psychiatric disorders like any other group of patients. In the psychic sphere, except for overt psychoses, epileptic patients are subject to psychic equivalents, confusional periods or fluctuations in their consciousness preceding, concurrent or following an actual seizure. Too often the diagnosis of epileptic deterioration or epileptic psychosis is made when the actual condition may be a part of a seizure. This ofttimes disuades therapy.

In extramural practice, these psychic alterations are usually benign and of short duration, but many times the episodes may be prolonged and cause behavior disturbances so that the individual's action is thought to be due to an actual primary psychosis.

Because the epileptic patients at the Illinois Security Hospital are subject to such antisocial behavior disturbances necessitating their incarceration, it was thought of interest to report results of intensive therapy.

From the Department of Nervous and Mental Diseases, Northwesten University Medical School, and the Department of Public Welfare of Illinois.

Altogether there are twenty-one patients suffering from epilepsy who are incarcerated. The reason for their commitment at Illinois Security was that, in eighteen cases, they were transfers from other state institutions — Elgin, Manteno, Anna, Lincoln, Kankakee, because of uncontrollable behavior; one was committed because of murder; one because of crime against children, and the other because of assaultive behavior in society. The reason for transfer usually was due to the violent convulsive episode and assaultive, destructive or combative behavior associated with or without spells. In one case, this latter behavior caused skull fracture and death of another patient.

From a diagnostic view, there were eight patients with psychoses, of which four were paranoid states with deterioration, and four were schizophrenic in type. Two were mental defectives; six organic brain disease (one due to trauma; one due to encephalitis; one meningovascular syphilis, and three due to chronic alcoholism). Four were classified confusional states and one, a constitutional psychopathic state. Deterioration clinically was present in eleven of these patients, or approximately 50%. Ideas of persecution are quite common in the whole group because of spells followed by confusion and lack of insight.

The type of seizure was major in all twenty-one cases. In fifteen there were also minor and equivalent states. In all the cases, in addition, there were behavior disturbances to a lesser or severe degree, consisting of assaultive, combative, and destructive impulses. In one patient, feigned spells occurred in addition to his usual ones.

The range of age varied from 24-73, with a median of 41. The onset of spells varied from 1-39 years of age, with a median of 17. The duration ranged from 1-60, with a median of 20 years.

The average stay in institution was nine years with a range of from one to thirty-two years. The frequency of seizures ranged from two a month to one hundred per month. The care of these patients because of frequent seizures and injuries is quite a problem outside of their behavior.

Treatment of epilepsy in general is that of the seizure phase and then measures to protect pa-

tient from the hazards of a seizure and also to protect society from the latter. In this group incarceration was necessary to protect society. The next step is treatment of the convulsive state so that the patient may be able to make an adjustment and, secondarily, prevent the antisocial behavior resulting from seizures or replacing them.

From the scanty records, it was felt that even though these patients have for the most part spent years in institutions, they had not had the benefit of intensive therapy. An attempt at therapy was felt to be worthwhile.

There was no correlation between duration of spells and the results of therapy. In the patients with a remission, the average duration was 26 years and the range from 1-60, except for one, the range being 8-60. The duration of spells was 1, 8, 13, 20, 40, 45, and 60 years.

RESULTS OF THERAPY

Patients were observed over a period of only six months. Remission of all spells of from 3-6 months occurred in six patients. Behavior improved coincidentally except in one case. In twelve patients, improvement occurred in that remission of two months occurred in four and spells decreased in number up to 90% of the previous number. The symptoms in the actual psychoses remained unchanged.

In one patient therapy seemed to have little effect. Since practically all these patients were behavior problems, the analysis is important. Behavior was considered good in two patients and improved in seventeen of the twenty-one. Behavior was the same in two patients. This behavior evaluation was determined by interviewing the attendants on the patients' wards. The patients' attitudes were definitely improved. By decreasing the confusional incidents, cooperative behavior was more likely to occur.

Five patients were treated with phenobarbital alone. Three were treated with dilantin and phenobarbital; eight with sodium bromide, and phenobarbital; three with dilantin and sodium bromide; and two with a combination of bromide, phenobarbital and dilantin. One received rabellon in addition to phenobarbital. Three patients were then taken off dilantin after it was found to be ineffective. Dilantin did not have any superior effects in helping behavior disturbances.

CONCLUSIONS

1. Remission of all spells occurred; in six of twenty-one patients treated with sodium bromide, phenobarbital and dilantin. Four showed remission of two months and then exacerbation.

2. In addition, eight patients' spells decreased in frequency.

3. Behavior disturbances were markedly improved in the majority of patients.

In closing, I wish to express my thanks to the personnel of the hospital for their cooperation.

SURFACE DEFECTS OF SKIN: TREATMENT BY CONTROLLED EXFOLIATION

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The purpose of this paper is to call attention to the possibilities for treatment of surface defects of the skin by means of superficial or deep exfoliation, and to outline standardized technics for such treatment.

No physician can check his patient files without noting case after case of persons who bear the disfiguring stigmata of acne vulgaris, chickenpox, and smallpox; whose skins are blemished by various pigmentations, keratotic patches, hypertrophied scars, large pores, and blackheads; or who have sought recourse in "face-lifting" to remove the deep wrinkles left by emotional strain or weight loss.

Ordinarily the physician dismisses such cases as hopeless if they are severe; if they are of moderate degree he considers the disfigurement unimportant. Even when he is referred to a dermatologist or plastic surgeon such a patient is too often either dismissed without remedy or treated by radical or ineffective methods. And all too frequently the patient seeks a solution for his problem from the unscrupulous quack who takes the fortune without restoring the face.

No blemish can be dismissed lightly as "unimportant" simply because it does not endanger the life of the patient, even if it has not obviously affected social and economic equilibrium. Skin defects may seriously distort the patient's

human relationships, not only because they affect the observer but because they destroy the individual's confidence in himself. Such personal and professional handicaps could in most instances be averted or removed by proper treatment.

The production of exfoliation of the superficial skin layers is of course a time-honored practice in dermatology; many skin diseases and infections are treated with keratolytic ointments. Correction of surface defects by such means has not, however, been widely practiced. Undoubtedly the lack of interest in this type of treatment is a product of the erratic and frequently unsatisfactory results obtained with the usual exfoliative agents and without standardized technics. These results have been unpredictable because the agents were uncontrollable. Nitric acid, hydrochloric acid, trichloracetic acid and carbon dioxide snow have been employed; their use cannot be too strongly condemned, for all too frequently they produce complete destruction of the full thickness of the skin and consequent scar formation. Again, strong keratolytic ointments give a reaction comparable to a second or third degree burn; in the latter case there is, of course, no regeneration of skin in the affected area. In some cases exfoliative agents have been prepared for use by the patient in home applications. Such a practice must, of necessity, be either dangerous or futile. If the agent is strong enough to produce adequate exfoliation, it is too strong to be used ad libitum by untrained hands; if it is mild enough to be safe when applied indiscriminately, it will be ineffective.

The degree of exfoliation must be controlled not only to avoid the risk of producing disfigurement more serious than the original defect but also to enable the physician to adjust the treatment in accordance with the severity of that defect. He must be able to produce superficial or deep exfoliation, over small or large areas, as the case requires.

For shallow pits and scars resulting from mild acne vulgaris, chickenpox, and similar disorders, for freckles and other surface pigmentations and keratotic patches, for large pores, blackheads and whiteheads, superficial exfoliation is sufficient. Deep pits and scars require deep exfoliation in a limited area. Lines, wrinkles, and puffiness of the eyelids can be removed only with moderately deep exfoliation over wider areas.

Although freckles may be removed by a "superficial peel" it should be remembered that freckling is a systemic disorder and will recur on each exposure to strong sunlight. Until the reasons for the irregular superficial mobilization of melanin from its storage depots are known, no permanent cure for freckles may be anticipated.

Melanomas, xanthomas, the common "liver blotch" and similar growths do not respond to exfoliation, since they usually extend through the deeper layers of the skin or displace the normal skin by their growth. The remedy for such defects is their excision and replacement by skin grafts.

The exfoliative agents and technics described in this paper have been used in the treatment of over two thousand patients during a period of fifteen years. While the degree of defect has often been extremely severe, in no instance has it not been possible to list the case as "improved", and in most cases the cosmetic results have been excellent. It should be understood, however, that no claim is made that perfect results are obtained. It cannot be said that a "100 per cent" cure, in terms of the quality of the patient's skin before the disfiguring disease, can be achieved. On the other hand, it might be pointed out that in the very cases in which it is most difficult to accomplish excellent results from the objective viewpoint, it is possible to obtain the best subjective effects. In other words, in the patient with a severe disfigurement, an even moderate degree of improvement is often sufficient to produce what might well be called a "100 per cent" cure of the psychologic handicap.

In this series there have been no complications resulting from infection. Occasional systemic reactions to the exfoliative agents have been observed, but in all cases they were immediate and transitory, and in no case has there been any evidence of organic damage from toxic absorption. The treatments are given in the office, there is little interruption of the patient's routines, and the overall period of treatment is brief.

These methods were worked out after considerable experimentation with various exfolia-

tive agents and different technics of application. They are presented in the belief that they may prove to be a valued addition to the armamentarium of the dermatologist and plastic surgeon, and in the hope that their availability may become more widely know to all physicians.

TECHNICS

Superficial Exfoliation

Superficial exfoliation results in the removal of large sheets of superficial epithelium whose thickness is about 0.08 inch, approximately the thickness of a sheet of yellow copy paper. Removal of such a sheet of skin carries with it all shallow skin defects such as mild pits and scars, sebaceous plugs and enlarged pores.

Exfoliative Agent. — A solution of the following composition is used:

Salicylic acid	12 gm.
Resorcinol	70 gm.
Lactic acid (85%)	24 cc.
Ethyl alcohol (95%) q.s.ad	180 cc.

These ingredients are mixed, bottled, and allowed to stand for twenty-four hours. The solution is then filtered and poured into a shallow acidproof enamel pan to a depth of about one-half inch. It is then exposed to ultraviolet light (75 polarity at a distance of 12 inches) for an hour, and bottled and sealed ready for use. It is important that the solution be fresh; it must be used within ten days after it is made up. Further exposure to air, as from frequent opening of the bottle, brings about a rapid loss of potency.

When prepared exactly as described above, this solution has maximal potency but produces minimal systemic reaction. The necessity for irradiation was established by careful controls with untreated solution. Since chemical analyses of the solution before and after irradiation have not been carried out, the precise effect of the ultraviolet light has not been established. However, the color of the solution deepens markedly after irradiation, and it is probable that the process involved may be an oxidation of the resorcinol, accelerated by the ultraviolet rays. Whatever the explanation, the fact remains that the irradiated solution produces an effective exfoliation, and the plain solution does not.

Procedure. — The patient is given a mild sedative; we have found seconal sodium (¾ grain) or pentobarbital sodium (1½ grains) effective. The area to be treated is cleansed thoroughly, first with soap and water and then with alcohol and ether. After cleansing, the skin is exposed to ultraviolet light (75 polarity at a distance of 24 inches) for two to three minutes — an amount sufficient to produce a mild erythema.

The exfoliative liquid is now applied, with a small cotton swab on an applicator stick, over the area to be treated. Five separate applications are made, at intervals of 10 to 15 minutes. In no case is the liquid applied until the previous application is entirely dry. The amount of liquid actually applied to the skin is small. One applicator, dipped a single time in the solution, contains an amount sufficient for one application over the entire face and forehead. Since less than two drams are taken up by the applicator, and since approximately half of this remains in the cotton, less than a dram of solution is distributed over the entire area in an application.

During the period in which the applications are made, the patient is given six glasses of water. Twenty minutes after the final application, rubberized adhesive tape is applied directly to the skin over the entire area. (See Figure 1) By the exclusion of air from the area the degree of skin destruction is greatly increased and a better slough is obtained.

Since there is occasionally a tendency to vertigo, varying with the individual, as a result of the treatment, the patient is kept at bed rest for an hour after the final application before being permitted to go home. This tendency to vertigo is the only "toxic manifestation" of systemic absorption we have observed in the entire series.

Twenty-four hours after the original treatment the plaster is removed by the physician and powdered zinc stearate (U.S.P.) is applied thickly over the entire area. The patient is instructed to continue applications of the powder five or six times a day for a period of five days. During this time no soap, water, cream or cosmetics are used. On the evening of the sixth day the patient applies light liquid petrolatum liberally over the entire area. Twelve hours later, on the following morning, exfoliation is complete, and the final office visit is made (See Figure 2). The dead tissue, which peels off in large sheets,

Figure 1. Adhesive plaster mask in place after treatment of entire face and forehead. *Note:* The patient shown in these illustrations was treated for deep wrinkles of the face, and would ordinarily have been given shaped latex adhesive pieces for application at home, as described in the text. For demonstration purposes, however, the full mask was applied.

Figure 2. Appearance of completed exfoliation before removal of dead skin. Note areas of moderately deep exfoliation under eyes, with superficial exfoliation over remainder of facial area.

is removed, and a completely regenerated underlying epithelium is revealed (Figure 3). The skin is washed with soap and water; a mild astringent (witch hazel) is applied. The patient is instructed to use the zinc stearate powder as a base, over which ordinary cosmetics may be employed, for three to four days after discharge. A variable degree of erythema may be noted immediately after exfoliation, but this disappears entirely in four to five days.

Male patients are instructed to shave closely on the morning of the initial treatment, and to omit shaving until after exfoliation is complete. It may be noted that bearded areas are as a rule less affected by disorders causing pits and scars than are the forehead, cheeks and nose.

Deep Exfoliation

A. Deep Pits and Scars

Deep pock marks and scars require deep exfoliation of each circumscribed area. There are actually three stages in treatment: (1) removal of old scar tissue; (2) stimulation of formation of new tissue; (3) approximation of normal skin levels.

Medication, cleansing, and irradiation are carried out as for superficial exfoliation. Each pit or scar is then treated individually as follows. One drop of tincture of cantharides is placed in the pit. After two or three minutes the application is dry, and another drop of the tincture is applied. Again the liquid is allowed to dry. The treated pit is then sealed off by covering it with a small amount of plain flexible collodion.

Twenty-four hours later a blister has formed in each treated area. Each blister is punctured, and zinc stearate powder is applied to assist in scab formation. The patient is instructed to continue to apply the powder, frequently enough to keep the areas dry, for one week, and then to apply light liquid petrolatum the night before returning for the next office visit.

At the third visit, the physician removes the scabs, exposing the reddened pits. The central scar tissue has now been removed. Use of the zinc stearate is continued for the following week; ordinary cosmetics are permitted over it.

At the fourth visit, each pit is touched with an applicator which has been dipped in a few drops of liquefied phenol. An escharotic whitening is noted at the sites of these applications. The electrocautery is then used to "plane off"

Figure 3. Removal of slough following treatment for facial wrinkling. Note the manner in which the dead tissue peels back in large sheets, exposing the newly regenerated epithelium.

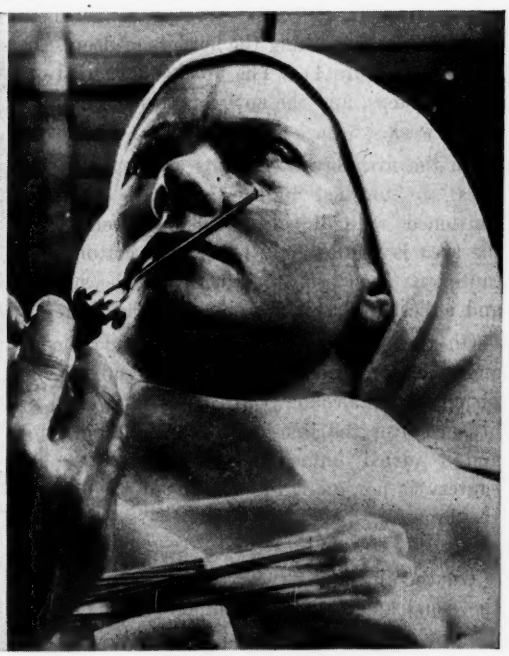

Figure 4. Use of electrocautery to approximate normal skin levels in wrinkled area. The cautery is used in the same fashion for deep pits and scars. Note area of escharotic whitening due to the application of phenol.

the edge of each pit; the cautery is drawn smoothly over the rim of the pit, the motion being directed from the outer to the inner area in short spokelike strokes (Figure 4). By this means the extruding rim is planed off to the level of the adjacent skin, and growth is stimulated.

Thus the three steps are achieved: The blister formation produced by the cantharides removes the old scar tissue, and the phenol and cautery not only level off the rim of the pit but provoke the growth of new and normal tissue. Specifically, the rim of normal but highly stimulated tissue acts as a minute pinch graft, actually proliferating and extending into the area formerly occupied by scar tissue.

The application of the phenol causes a brief sharp sensation of pain, followed by an immediate local anesthesia. This anesthetic effect makes it unnecessary to employ any other anesthetic agent for the use of the cautery.

It should be noted that the cautery is first brought to red heat and is then disconnected for one second before it is used; it should never be applied to the skin while red hot.

After treatment, elastic adhesive plaster is applied to produce a slough. As usual, this occurs within twenty-four hours, at the end of which time the plaster is removed. Zinc stearate applications are used for one week. The patient then applies liquid petrolatum and returns to the office the following morning for the final exfoliation.

One month after this treatment has been completed, a superficial exfoliation is carried out over the entire face, thus eliminating any residual irregularities or differences between treated and untreated areas.

B. Deep Lines and Wrinkles

Deep lines and wrinkles on forehead, cheeks, or between the eyes, and puffiness of the eyelids, are readily treated by a moderately deep exfoliation of the affected areas, followed by a superficial exfoliation over the entire area.

Phenol is the exfoliative agent and the electrocautery is used to plane out the deeper lines

and crevices in the same manner as has been described for smoothing the borders of deep scars and pits (Figure 4). The process is carried out in three steps, and the entire treatment requires only a week.

On the first day the eyelids are treated. The lines are touched lightly with an applicator moistened with liquefied (88%) phenol, and the area is immediately dried with cotton. The cautery is then used to smooth out the surface, and adhesive plaster is applied to the area.

On the second day, this plaster is removed, and the forehead is treated. A mixture of phenol and alcohol (30 drops of each) is brushed over the lines with a small applicator, and is dried immediately with cotton. The cautery is now used to smooth out the lines in the brow, and adhesive plaster is applied over the freshly treated area.

On the third day the plaster is removed and the usual applications for superficial exfoliation are made over the face and neck. However, instead of covering the entire area with adhesive, the patient is given shaped pieces of adhesive tape latex plasters, marked for right and left cheek, forehead, chin and lips, with instructions to apply them and leave them on overnight. The next morning they are removed, and zinc stearate is applied as usual. On the evening of the sixth day the patient applies liquid petrolatum, and on the seventh day returns to the office for the final complete exfoliation of all treated areas.

Precautions in Use of Phenol. — The actual amount of phenol applied to the skin is rarely more than 15 to 20 drops, of which the bulk is left on the applicator. Such applicators should be no larger than a small ear swab. Only a light coating of phenol is applied, and it is dried immediately with cotton. It is never applied over a large area in one treatment. Spot treatment is used for regional defects; and if, for example, the entire forehead requires treatment, one-half the area is treated and fifteen minutes are allowed to elapse before the second half is treated.

With such precautions no danger attends the use of phenol. The action is limited to the superficial layers of the epidermis, and absorption is held to a minimum by the coagulating action of the phenol itself. The higher concentrations used produce coagulation; lower concentrations merely denature, rather than precipitate, proteins.

The use of phenol should be confined to the areas and purposes described. It should never be used on the neck or other outlying areas; nor should it be used within two weeks after a patient has used a paraphenalein hair or eyelash dye.

There may be a temptation, on first using this technic, to attempt to neutralize the phenol by the application of alcohol. Such a procedure destroys the effectiveness of the treatment.

DISCUSSION

Induced exfoliation is thus of value in (1) correcting surface defects of the skin and (2) combating the facial effects of premature age.

The former is unquestionably the far more important use. For example, thousands of young persons every year suffer from acne vulgaris. Many seek the aid of their physicians, and with modern treatment the acute disease process is stopped. But what of the aftermath? Can we consider these patients to be "cured" simply because the lesions are no longer draining and further erosion does not take place? Such patients do not themselves feel that they have been healed. At the very time that they are laying the foundations for their social and professional futures they find themselves disfigured by the stigmata of their disease. The attempt to cover these with cosmetic preparations often only accentuates the craters and irregularities. Yet, whether they go to family physician or specialist, they are ordinarily told to "forget about it." This is easy advice for the physician to give, but it is very bitter for the scarred young patient to take. Much needless suffering and permanent psychologic handicap results. For these patients, and those suffering from similar defects as a result of smallpox, chickenpox, and the like, the removal of the defect seems like the beginning of a new life.

There is much talk today of preventive medicine. Removal of skin defects would seem to be not only the final step in cure of disfiguring diseases but also truly a preventive therapy. Rather than allowing these patients to suffer needlessly for years, and to convert normal human sensitivities into full-fledged neuroses, why should they not be treated at once, as a matter

of routine, as soon as the active disease process has been arrested or run its course? The need for such treatment is great; yet at the present time it is almost wholly unsatisfied.

Such conditions should not and need not exist. The technics given have, we repeat, been used in over two thousand cases with no instance of infection or of severe local or systemic reaction. The occasional slight or moderate vertigo immediately after the application of the exfoliative solution has been transitory and has never been followed by any evidences of systemic damage. As was shown in the description of the technic, the actual amount of exfoliative agent applied to the skin is extremely small. Such minimal amounts seem to produce no toxic effect on the parenchymatous tissues.

There is frequently an edema, with evidence of cellulitis, in the treated areas, but this usually passes during the first week and in no instance does it continue beyond the second week.

It is interesting to note that exfoliation not only does not harm the skin but actually exerts a "normalizing" influence. This influence is notable in cases of acne vulgaris, where exfoliation is of definite value as a therapeutic agent as well as for repair of damage already done. In these cases the skin is of the oily type, with blocked follicles, comedones, and irritation and self-infection from scratching. Exfoliation definitely tends to reduce the excessive activity of the sebaceous glands in these individuals.

In extremely severe scarring it is sometimes necessary to repeat the superficial exfoliation several times in order to achieve cosmetic success; yet there is never any tendency toward undesirable skin texture or growth. Rather, there is an increase in tone and improvement in texture.

The use of these technics in the treatment of wrinkles remains to be discussed. The chief importance of the treatment lies in the fact that it offers a safe and effective alternative to the practice of "face lifting." The latter practice has continued to flourish because we have had no better answer to the desire to combat the aging process.

Face lifting is unanatomical; the underlying structures, displaced by the artificial tension, tend to resume their normal positions. It is dangerous; there is always the threat of infection and of keloid formation. It is frequently unsuccessful; the degree of scar formation following surgical incision is an X quantity, and asymmetry or distortion may result from overgrowth of scar tissue or disparity in the reparative processes on either side of the face. It is temporary; the structures sag once more and time and emotion make their marks anew. And each repetition of the operation multiplies many times the risks of the previous one, because the work must be done in a field where scar tissue is already present.

These are the objective reasons for decrying the use of the procedure. There is also a subjective one which has considerable weight with the patient — face lifting leaves its telltale marks. The distinctive scars, however faint and however well concealed by the hairdress, betray the patient's search for youth every time her hair is dressed. The degree of embarrassment which some women feel at this repeated betrayal is astonishing.

Induced exfoliation has none of these drawbacks. Underlying structures are not disturbed. There is no distortion, no scarring. Infection and keloid formation do not occur. The process may be repeated as often as the inevitable new wrinkles appear.

The normalizing influence of exfoliation on oily skins has been discussed. The skin in which excessive or premature wrinkling takes place is usually dry, with insufficient lubrication and lack of underlying fat pads, yet the same tendency to "normalize" appears, and the skin improves in texture and tone even after repeated treatments.

The time factor is also important. The entire treatment by exfoliation requires only a week. And last, but to the patient by no means least, there is no telltale sign to betray her search for the Fountain of Youth.

CONCLUSION

Detailed technics for the production of superficial and deep exfoliation of the skin are presented. The use of these technics is discussed in relation to (1) repair of surface defects and discoloration of the face and (2) removal of facial lines and wrinkles. Special emphasis is given to the opportunity for use of such treatment for acne vulgaris and similar disfiguring diseases or conditions.

TUBERCULOUS PERITONITIS CASE REPORTS WITH PATHOLOGICAL FINDINGS

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Four cases of tuberculous peritonitis at a station hospital in England in PW patients calls attention to this infrequently discussed subject. These cases are reported after a review of about eighty cases of pulmonary tuberculosis admitted to this hospital during the past eight months. The study is largely a clinical one and was undertaken after an observation of four cases whose symptoms were abdominal in character. Tuberculosis has long been known to affect serous membranes with miliary, serofibrinous, plastic and adhesive involvement, usually single, but sometimes in combination. The peritoneum is less often involved than the pleura, but more often than the pericardium.

The disease is most prevalent in children and young adults, though no age is exempt. Kellett[1], in 1938, in a review found most cases occurring between the ages of two and five years. Holt states that Still found the largest number in the second year of life in a series of one hundred cases. Wilkinson[2], in an examination of five hundred and ninety-three cases of non-pulmonary tuberculosis showed that tuberculous peritonitis was more common in adolescence and in the female. There were twenty-nine cases of peritonitis, eleven occurring between the ages of sixteen and twenty. In Osler's textbook[3], a review of three hundred and fifty-seven cases from the literature showed the disease occurred most frequently between twenty and forty, twice as often in females, and more common in Negroes in America. Stubenbord and Spies[4], in 1938 after reviewing two hundred and fifty-seven cases, observed that forty-six percent occurred between the ages of one to ten years, eighteen percent between ten and twenty years, and seventeen percent between twenty and thirty years.

The varieties are classified under three main headings, according to the literature: 1-ascitic or exudative; 2-serofibrinous or loculated encysted; 3-hyperplastic, chronic, or fibroid adhesive and obliterative.

Exudative peritonitis occurs mostly in children and young adults. The onset is usually gradual, taking several months to show any notable protusion. The distention is almost painless. A low grade fever is generally noted. Occasionally the onset is acute, simulating acute peritonitis and the peritoneum is involved as part of a generalized miliary tuberculosis. This type is usually seen associated with tuberculosis of the ileocecal region.

The serofibrinous variety may have an insidious or acute onset. McPhedran quoted by Stubenbord and Spies states that tuberculous peritonitis must be thought of if a patient presents abdominal pain, a low grade fever, anorexia, fluid and swelling. Holt mentions irregularity of the bowels and vomiting as important symptoms. As adhesions develop, the exudate becomes encysted in pockets and the omentum and intestine become matted together. In more advanced stages, retroperitoneal abcesses and caseous processes may infiltrate the wall of the gut and cause ulceration.

Plastic adhesive peritonitis is a later stage of serofibrinous inflamation, creating extensive and thickened adhesions and involving the serosal surfaces, omentum and viscera. Fibrous contractions may cause intestinal obstruction. The omentum is often rolled upon itself. Surgical exploration may reveal caseous deposits or enlarged lymph nodes, besides the matted omentum and intestines. Besides the toxic manifestations of tuberculosis, localizing symptoms may become distressing because of fixation and stenosis of the bowel. Separation is difficult at the risk of perforation. Rarely the intestine itself may become perforated and pus may drain from the peritoneum into it. Most cases are studded with the typical miliary tubercles.

It is generally accepted that tuberculous peritonitis is secondary to a primary focus elsewhere, though it may not be found or demonstrated. The spread may be locally from retroperitoneal lymph nodes, fallopian tubes, or as a result of blood stream invasion. In the study of two hundred and fifty-seven cases by Stubenbord and Spies, the primary focus was encountered in about forty percent of the cases. No primary focus could be demonstrated in the remaining cases. In Wilkinson's opinion most cases arise hematogenously or by an ascending infection of a fallopian tube. In the majority of patients in his report of five hundred and ninety-three cases

there was no gross evidence of past or present lymph node tuberculosis. This does not indicate, he states, that these patients didn't suffer from some degree of tuberculosis of the lymph nodes at the time of their primary infection because in some cases, the lymph nodes tuberculosis may have subsided before Roentgen examination was made, and in others, enough time may not have elapsed for calification in the nodes to develop.

The prognosis for treated cases is good, at least temporarily, providing that there are no complications or that it is not a part of a miliary tuberculosis. Even in these cases, some ultimately die of pulmonary tuberculosis. It is known that the earlier the disease occurs, the worse the prognosis. Authors seem to vary in their prognostic statistics. In Maingot's[5] opinion, nearly half were cured by medical and surgical interventions combined and death was high in untreated cases. Fredrick Price states that the peritoneum is involved in 15% of all fatal cases of tuberculosis. In the review of two hundred and fifty-seven cases, Stubenbord and Spies state that results were not encouraging. There was an improvement in about 56% of the cases — death in 32.5% and no improvement in 11.5%. The largest number improved were surgically treated cases — eight-two percent. After medical treatment alone only eighteen percent improved. Medical treatment consists of rest, diet and heliotherapy. Furness, Brown and Sampson all advise heliotherapy, natural or artificial, except in the acute, active and ulcerative conditions. Surgery consists of removal of fluid by small incision or laparotomy. Some authors feel exposure of the diseased peritoneum to air is beneficial. Others doubt it.

CASE REPORTS

CASE 1 — A German POW, aged 21, was admitted to the hospital 7th of January, 1945. He was sick only twelve days, with the following complaints: Swelling and pain in the abdomen, constipation, and anorexia. In his past history, he revealed having pneumonia in November, 1943, but no other diseases. Also stated that he drank raw milk all during his life. There was no family history of tuberculosis. On examination, a tense swelling of the abdomen was noted. Paracentesis was performed twice. Paracentesis yielded 4000 cc of yellow-green fluid with a specific gravity of 1.020, 2000 cells per cc, with a differential showing ninety per cent lymphocytes. Two weeks later, 1500 cc of yellow fluid was removed. Specific gravity was 1.012; cell count showed 100 cells with lymphocytes predominating. Cultures and smears were negative for acid-fast or other organisms. Guinea pig inoculation was not carried out. Urines, and blood studies were normal. Roentgen examination of the chest revealed no pathologic process. A flat plate of the abdomen was negative. An exploratory laparotomy was performed 19 March, 1945. On opening the abdomen, a small amount of straw colored fluid was found. The peritoneum was thickened and adherent to loops of the bowel and the abdominal wall and studded with tubercles of various sizes and consistencies. Pathological report of the biopsy confirmed the diagnosis of tuberculous peritonitis. Since the operation, the patient seems to have improved. There has been little perceptible swelling of the adbodmen but slight pain and tenderness in both upper quadrants remain.

CASE 2 — A German POW age 19 was admitted to the Hospital 29th of November, 1944, because of abdominal pain, a daily watery stool, and a progressive loss of weight of 45 kilos during the preceding two months. Patient gives no personal or family history of tuberculosis but states that he drank large quantities of raw milk for many years. Patient appeared markedly asthenic and anemic. Examination of the chest disclosed a few crackling rales and suppression of breath tones in the right upper lobe. Roentgen revealed a moderately advanced tuberculosis with cavity formation. The abdomen was slightly distended and tympanitic. Laboratory examination revealed a definite secondary anemia; urine and stool cultures were negative. Patient was transfused many times after which an exploratory laparotomy was performed on 29th of January, 1945. Lesions resembling tuberculosis were noted on the serosal surface of the small bowel, and mesenteric nodes were found to be large, firm and yellow. There was about 30 cc of blood stained, straw-colored fluid in the abdominal cavity. He seemed to improve for a couple of weeks post operatively, but then gradually lapsed into a state of inanition with inability to take food or liquid. The temperature rose daily. Death occurred 7th of March, 1945.

At autopsy, several small loops of small intestine were intimately adherent to one-another and to the abdominal scar by fibrous and fibrinous adhesions. There was about 500 cc of clear straw colored fluid noted. The ileum felt thicker than normal, and numerous yellowish raised plaques with punctate hemorrhages were found on the serosal surface. The mesenteric and retroperitoneal nodes were enlarged and caseous. On opening the ileum, many shallow ulcers were noted, and the process seemed to stop abruptly at the ileo-cecal junction.

The hilar lymph nodes were enlarged and caseous. The right upper lobe and left lower lobe were infiltrated by a caseous bronchopneumonia; and located in these same lobes were found large cavitations lined by a grayish necrotic material.

CASE 3 — An Italian POW, age 28, was a captive of the Germans since September, 1943. As a prisoner he worked in the coal mines and lived on a meager ration. In July, 1944, he complained of severe cough, pain in the chest, fever and chills, but was not hos-

pitalized until September of the same year. Patient was admitted here, 8th of February, 1945. In addition to the above, he complained now of pain in the abdomen and frequent uncontrollable vomiting. Bowel movements were normal. Examination revealed an acutely ill, toxic and emaciated patient. Examination of the chest disclosed dullness and diminished to absent breath tones throughout. Coarse moist rales were heard throughout. Repeated x-ray studies showed disseminated miliary, and mottled parenchymal infiltration bilaterally. Previous to his admission to this hospital he received five hundred forty thousand units of Penicillin. His daily temperature was septic throughout his course. The sputums were consistently negative for acid-fast bacilli. He expired 22 March, 1945.

At autopsy about twenty-five cc of straw colored fluid was found in the peritoneal cavity. There were many scattered, enlarged but firm retroperitoneal and mesenteric lymph nodes. A few fibrous adhesions were found about the loops of the small bowel. On sectioning a thickened ileum, the mucous membrane was found studded with miliary tubercles. Pleural cavities disclosed fibrous adhesions, but no fluid. The lungs were filled with a dense conglomeration of miliary tubercles of all sizes, with little normal lung parenchyma remaining. The mediastinal lymph nodes were adherent, thick, enlarged and a dark slate-gray in color, with a yellowish soft framework in the center. The liver, spleen and kidneys showed evidence of metastatic miliary tubercles. Other organs appeared normal.

CASE 4 — An Italian POW, age 20, was a prisoner of the Germans since September, 1943. As a prisoner, he worked also in coal mines and lived on a meager ration. He was captured by the Americans 11 December, 1944. When seen by an American medical officer 12 December, 1944, he stated he had been ill for the past three or four months, with a severe cough, laryngitis, pain in the chest and abdomen, progressive loss of weight and weakness. The patient was admitted to this hospital, 8th February, 1945. Examination disclosed diffuse rales in both lung fields. X-ray studies showed a far advanced, bilateral, pulmonary tuberculosis with cavitation. Sputum was positive for acid fast organisms. He died of a severe pulmonary hemorrhage 4th of April, 1945. At autopsy about one hundred cc of straw colored, opaque fluid was found in the pelvis. Mesenteric lymph nodes draining the ileum and the ascending colon were large and caseous. The serosal surface of the distal half of the ileum and beyond it showed a great number of grayish-yellow caseous areas, and multiple shallow ulcerations. These caseous nodules were more numerous about the ileo-cecal junction. The lungs were adherent to the parietal pleura by thick fibrous and fibrinous adhesions. Both lungs revealed caseous pneumonia and cavitation throughout. The liver and spleen revealed a few miliary tubercles. Other organs seemed normal.

COMMENT

This investigation has been largely clinical and several facts stand out in comparing our report with previous studies.

1. Analysis showed that all four cases occurred in young adults, between the ages of 20 and 30. No previous or family histories of tuberculosis were obtained.

2. Maingot states that thirty or forty percent of the cases are due to bovine infection. Two of our cases gave a history of drinking raw milk for many years.

3. It is generally accepted that tuberculous peritonitis is secondary to a primary focus, commonly either in the lungs, nodes or intestine, though this primary focus may not always be found. In one of our patients the primary focus could not be found. In the other three cases, the spread was undoubtedly hematogenous from primary foci in the lungs.

4. In our clinical analysis each case presented subjective or objective findings or both. All four cases had pain in the abdomen. One patient vomited for three months before he expired. Two cases had irregularity of the bowels, one a diarrhea and the other constipation. Two cases presented marked swelling of the abdomen and in these, peritonitis was observed at exploration.

5. Sputum analysis for acid fast organisms was positive in only one case. Tuberculin tests and guinea-pig innoculations were not carried out.

6. Three of these four cases have died. The present status of Case 1 is uncertain, though he seems clinically improved following his laparotomy.

CONCLUSION

Four cases of tuberculous peritonitis, after a survey of about eighty cases of pulmonary tuberculosis in POW patients, have been brought to our attention at this station hospital. Literature discloses that the peritoneum is involved in fifteen percent of all fatal cases of tuberculosis. The diagnosis was confirmed in two cases by laparotomy and three were verified by post mortem examination.

This paper has attempted to bring out the salient features and the literature on tuberculous peritonitis in reporting these four cases.

BIBLIOGRAPHY

1. Kellett, Charles Ernest, M.D., M.R.C.P., "Tuberculous

Peritonitis" — British Encylopedia Medical Practice, 9: 557, 1938.
2. Wilkinson, M. C., M.B.B.S., Medical Superintendent Essex County Council Sanitarium, "Pathogenesis of Non-Pulmonary Tuberculosis" — British Medical Journal, page 660, 11 November, 1940 — Published by British Medical Association.
3. Osler, Sir William — Text Book of Principles and Practice of Medicine — "Tuberculous Peritonitis" — Edited by Thomas McCrae, M.D., 1935, 12th Edition — Appleton Century.
4. Stubenbord, J. C. III, and Spies, J. — "Tuberculous Peritonitis — Analysis of 257 cases"; Surg. Gyne., and Obs. 67:269 to 272 — September, 1938 — Surgical Publishing Company of Chicago.
5. Maingot, Rodney, F.R.C.S., England — "Tuberculous Peritonitis" — Text Book of Abdominal Surgery, Volume II, 1940, Appleton Century.
6. Price, Frederick W. — "Tuberculous Peritonitis" — Text Book of Practice of Medicine, Page 699 — 6th Edition Oxford Medical Publications.

PENICILLIN INEFFECTIVE FOR TETANUS OHIO DOCTOR REPORTS

Tetanus, more commonly known as lockjaw, does not respond to penicillin treatment, according to W. A. Altemeier, M.D., from the Department of Surgery, University of Cincinnati College of Medicine, and the Cincinnati General Hospital.

Writing in the January 12 issue of *The Journal of the American Medical Association*, Dr. Altemeier said:

"A clinical study of 16 cases of established generalized tetanus has failed to show evidence of any beneficial effect of penicillin on the course of this disease. There was no obvious fall in the temperature or pulse rates as has been repeatedly seen in other infections susceptible to its action, no decrease in mortality or morbidity nor any definite decrease in the severity, duration and frequency of the convulsive seizures which could be attributed to the action of penicillin. Exceptions may be found in cases of tetanus complicated by pneumonia or other infections susceptible to penicillin. In such instances, however, the improvement that occurs is due to the effect of the chemotherapeutic agent on the complicating infection and not on tetanus."

Tetanus is an acute infectious disease of the central nervous system caused by a germ called the Clostridium tetani and characterized by painful spasms of the muscles due to the action of a toxin. Tetanus usually follows an injury, often trifling, but especially puncture wounds or lacerations of the hands or feet which have come in contact with the germ.

Dr. Altemeier said lockjaw occurs so frequently in small and often insignificant wounds because these do not receive a physician's attention. Patients with large wounds are immediately injected with tetanus antitoxin which prevents the poison from spreading.

In tetanus there is rarely any sign of infection at the source of the laceration or puncture wound. The bacteria produce a powerful toxin which spreads to susceptible tissues throughout the body. After a sufficiently large dose of the toxin has become fixed in the central nervous system, death apparently is inevitable under the present methods of treatment. Large doses of antitetanic serum, which are effective in the prevention of the disease, are of no use once poison has become fixed in the central nervous system.

Penicillin has not been beneficial in the treatment of tetanus because it has no effect on the Clostridium tetani toxin. Dr. Altemeier concluded that until some chemical agent can be found to directly attack the fixed toxin, successful treatment of the disease must depend largely on an early diagnosis.

NEW ASSOCIATE GENERAL MANAGER FOR A. M. A.

Dr. George F. Lull, formerly deputy Surgeon General, United States Army Medical Corps, has been appointed Associate General Manager of the American Medical Association.

There is still much ahead in the control of tuberculosis. Mortality reports may give the number who die, but it is also necessary that contacts be ascertained to find others who need medical care or to locate sources of infection who must be kept apart from the well. In 1943, only 33 per cent of the deaths from tuberculosis in Indiana were reported before the death certificate was recorded. Many of those were undoubtedly properly diagnosed and under care for some time, yet there were also many whose disease was not recognized until too late.

There is need for greater recognition of the problem of the recovery of the aged. Many are of the Chronic type, able to be about, and therefore more dangerous because of the potentialities of spreading infection to others, particularly young children. Tuberculosis mortality rates are falling, but in general the percentage reduction is much higher in the younger groups than among those of older age. Murray A. Auerbach, Bulletin, Indiana State Bd. of Health, Nov. 1945.

Physical Medicine Abstracts

John S. Coulter, M.D.

SAFETY OF MODERN ALTERNATING POSITIVE AND NEGATIVE PRESSURE RESUSCITATORS

Henry Schwerma, Ph.D., and A. C. Ivy, Phl.D., M.D.
IN THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 129;18;1261
December 29, 1945

There is no evidence in this study that artificial respiration of the suck and blow type (+ 14 mm. of mercury and — 9 mm. of mercury) caused lung damage.

In 5 anesthetized dogs given artificial respiration with the E and J Resuscitator for one hour in the presence of natural breathing no evidence of emphysema was found.

The rate of return of blood pressure to the control level after the administration of curare was studied when dogs were given artificial respiration by various mechanical methods for one to three hours. The E and J Resuscitator was used on 20 dogs, the General Electric intermittent positive pressure Pneumolator on 7, and B intermittent positive pressure device on 8 and the Drinker Respirator on 7. No difference was found.

ULTRAVIOLET LAMPS FOR DISINFECTING PURPOSES

Present status

W. W. Coblentz, Ph.D., D.Sc., Washington, D.C.
In THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 129;17;1167
December 22, 1945

The results of this investigation, which extended over a period of six months (December to May) are impressive and instructive in showing that the incidence of respiratory illness in the barracks irradiated with low intensity ultraviolet lamps followed the same undulations that occurred in the adjacent control barracks, whereas in the barracks irradiated with a high intensity there was a definite reduction in the incidence of respiratory illness — a reduction estimated at 25 per cent for the entire period of observation of respiratory illness in the high intensity irradiated group as compared with the control group, "and not due to chance." Hence, while ultraviolet radiant disinfection of air can be substituted for actual air displacement in reducing cross infection in chickenpox, measles and mumps, and with less certainty in reducing the incidence of colds, there is no evidence that will justify high pressure sales promotion of ultraviolet disinfecting lamps as a cureall or sureshot preventive of respiratory illness. Disinfection by ultraviolet radiation can serve a useful purpose, but it has its limitations.

ACUTE BRACHIAL RADICULITIS

Course and Prognosis

G. Joly Dixon, M.D. Bubl., MRCP, T.B.S. Dick, MB Manc., MRCP
In THE LANCET, 2;22;708
December 1, 1945

This article is based on a detailed study, over about two years, of 16 typical cases of acute brachial radiculitis seen either at an emergency hospital or, through the courtesy of Dr. Fergus Ferguson, at the Manchester Royal Infirmary. These cases all conform to the syndrome described by Spillane (1943), invariably starting with some pain in the root of the neck and shoulder region. Usually the pain is very severe, and often it com-

plicates the course of an acute infectious fever or the convalescence from a surgical operation. Palsy is often not noticed for several days, in fact not until the pain begins to abate; then the patient usually finds he is unable to lift his arm. Muscular wasting follows close on the heels of the palsy and is usually extensive at the end of 14 days. An area of sensory loss, although not complained of by the patient, is usually found over the deltoid muscle. We found anhydrosis in the analgesic area in 3 of 6 patients, whom we subjected to powerful stimulation of sweating; normal sweating was observed in the analgesic area in the other 3 patients.

Most of the Service patients were fitted with abduction splints very soon after the onset of the palsy. The civilian patients were given vitamin B_1 at various periods during the disability. Neither of these procedures appeared to alter the course of the disease in any way.

The course of 16 cases of rapidly developing painful dystrophy of the muscles of the shoulder girdle, attributed to brachial radiculitis, has been followed for a considerable period.

Ten cases have shown complete functional recovery in 8-18 months. Besides these, one was so far recovered at the end of 5 months that he returned to duty; a second with complete recovery on one side is recovering from a relapse on the other side; and a third is still showing slow recovery at the end of 2 years.

Of three cases that have been stationary or are deteriorating, one has very little disability; the diagnosis in a second is doubtful; and only the third has a severe residual disability.

Recurrences developed in five cases; two at the end of 6 weeks; two at 6 months; and one at the end of 5 years.

TREATMENT OF RHEUMATIC FEVER

Newell C. Gilbert, M.D., Chicago, Illinois

In THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION, 38;4;124
April 1945

There is one thing that does help, and that is summed up in a report of the British Medical Research Council as "Maternal Care." Maternal care means an adequately planned diet, proper rest before and after meals, and adequate sleep.

Various sulfonamides, and especially sulfanilamide, have been used in daily small doses over long periods of time as a prophylactic agent against upper respiratory infections and the resulting recurrence of rheumatic fever.

The most important demand in the treatment of rheumatic fever is its immediate recognition and immediate care and bed rest, even with the mildest symptoms. The bed rest must be absolute and continuous.

During the initial infection, or the early stages of recurrence, patients can be at home or in the hospital for study and intensive treatment. After the early stages they should be in a convalescent home, built and planned and operated for this purpose. The city hospital does not meet the requirements. We should avoid the hospital atmosphere.

The convalescent home should be far enough out of the city to insure an abundance of sunshine from which the actinic rays have not been filtered out by city dust and smoke.

THE GENERAL TREATMENT OF ARTHRITIS

Loring T. Swain, M.D., Boston, Massachusetts

In THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION, 38;12;489
December 1945

The first step in treating a hypertrophic joint is to rest it. In extreme cases it is beneficial to immobilize such a joint in a plaster cast for a week or more. After such a complete rest invariably the joint is plainless and more movable; and as it is protected from further strain, the bony growth ceases.

Heat is always advisable in these cases, especially for older people whose circulation is poor because of arterial changes. Moist heat, if used regularly, stimulates sluggish circulation and relieves soreness and pain.

Diet does not seem to play an important part in curing degenerative joint disease, although in the case of overweight patients a diet low in carbohydrates and sweets is advisable.

Permanent relief from pain in the back, neck, hips, and knees, however, comes principally from correction of faulty posture which causes the strain. This is done by special rest positions and exercises.

As a tired person always droops into poor posture, the same positions and exercises are prescribed for these rheumatoid cases as were used

in the treatment of the osteo-arthritics, but for a different reason. Their poor posture must not be allowed to interfere with normal functioning of the abdominal viscera through crowding.

Taken morning and evening, these exercises aid digestion and stimulate circulation through the abdomen. The flat hyper-extended position gives the heart, lungs, and diaphragm their best chance to function. A little explanation will make this routine clear to the patient, and he will cooperate fully.

There is no specific diet that can be prescribed for rheumatoid arthritis, although we know certain facts which help in planning a balanced diet. Dr. Ralph Pemberton has shown that many cases have low sugar tolerance; therefore, the diet should contain the minimum amount of sweets and carbohydrates.

The diet, therefore, should be well-balanced with protein, carbohydrates, and fats and should be rich in vitamins and minerals. In my experience extra vitamins are indicated, as most of these cases have been deficient for a long time, and their tissues change slowly even with large doses of vitamins.

In many cases gastric analysis shows a lack of hydrochloric acid, which may be the cause of the failure to absorb iron and vitamins. This acid should be supplied when indicated.

FIBROSITIS

Douglas H. Collins, M.D., Emergency Medical Service Medical Superintendent and Pathologist, Wharncliffe Hospital, Sheffield; Rheumatism Research Fellow, University of Leeds

In THE PRACTITIONER, 155;5;299
November, 1945

This rather inappropriate term for most conditions of non-articular rheumatic disease is justified only by common usage. To help in planning treatment, four common etiological types of fibrosis may be borne in mind:—

(1) Toxic: myalgia associated with, or immediately following, various systemic intoxications or infections.

(2) Mechanical: related to acute or repeated strains of ligaments and muscle insertions.

(3) Postural: muscle spasm resulting from injury or disease of joints or from developmental or occupational deformities.

(4) Psychogenic: Halliday (1937) drew attention to the high proportion of compensation insurance cases in which rheumatic complaints were due to psychogenic factors. Boland and Corr (1943) found psychogenic rheumatism to be a frequent cause of disability among rheumatic patients admitted to a U. S. service hospital. They state that the diagnosis is facilitated by recognizing such points as gross incongruity of symptoms with structural changes, persistence of disability, bizarre posture and associated hysterical manifestations. Ellman and his colleagues (1942) examined psychologically fifty mixed service and civilian patients diagnosed as fibrositis of over three months' standing. They found thirty-five to be suffering from common psychological disorders bearing on their complaint. Hysterical features were most common. They state that vague shifting pains suggest an underlying emotional disorder, whilst strictly localized pain points to the presence of organic changes.

Copeman and Ackerman (1944) offer an anatomical explanation of that further form of fibrositis associated with tender, palpable nodules. These nodules are apparently vascular, fatty structures liable to oedema and congestion, in which state they may impede the smooth working of muscles and tendons in their fibrous envelopes or even herniate through foramina in the fascial investments.

TREATMENT. — Therapeutic infiltration of a local anaesthetic is now an established procedure when pain is referred to accessible tender spots, but good results are not constantly achieved.

Success in treating fibrositis requires a careful consideration of all possible factors. Vigorous massage and physiotherapy undoubtedly relieve many early and acute cases. In chronic cases, search must be made for underlying causes and treatment directed appropriately. At present, more importance attaches in America to psychogenic rheumatism than in this country. The war has vastly increased appreciation of psychosomatic medicine. It has also brought psychiatric training and experience to a great number of practitioners. There is hope that a nationally available specialist psychiatric service will grow after the war. This will do much to relieve both practitioners and patients of their wearisome burden of fibrositis.

Medicine and the Armed Forces

HOSPITAL RESIDENCIES UNDER THE G. I. BILL

This statement by a subcommittee on veterans' affairs of the Committee on Postwar Medical Service was compiled for the information of approved residency hospitals and physician veterans by that subcommittee, the Council on Medical Education and Hospitals and the Bureau of Legal Medicine and Legislation of the American Medical Association. The provisions of the amended Servicemen's Readjustment Act are included. The statement has been approved for publication by the Central Office of the Veterans Administration.

1. *Eligibility of Hospitals.*—On Nov. 9, 1945 the chairman of the subcommittee on veterans' affairs of the Committee on Postwar Medical Service of the American Medical Association submitted for the consideration of the Administrator of Veterans' Affairs the question as to whether payment of tuition can be made to hispitals which furnish physician veterans advanced hospital education beyond internship. In the letter it was stated that the instruction to be furnished to the physician veterans should be regarded as an educational program, as distinguished from "on the job training," for the reason that it involves organized teaching on rounds and in conferences as well as classroom conferences dealing with autopsy findings, medical problems in the hospital, x-ray diagnosis, laboratory studies and other organized educational features which definitely stamp this training as education. It was also stated that such a program of instruction entails expenditures by the hospitals which would be unnecessary if patient care alone were involved and that the services of additional physician teachers would be required in order to provide the necessary instruction.

In reply to this letter from the chairman of the subcommittee of the Committee on Postwar Medical Service, the Administrator of Veterans' Affairs ruled that ". . . the training contemplated in connection with residencies and fellowships is not 'training on the job' . . . but is in the nature of institutional training." This applies to all acceptable residency hospitals, whether or not they are affiliated with a medical school. The ruling means that otherwise qualified physician veterans pursuing the contemplated training in connection with residencies or fellowships are eligible for subsistence benefits and that approved hospitals are eligible to apply for tuition remuneration. (See section 6.)

2. *State Approval of Hospitals.*—Although the Veterans Administrator has established the general principle that hospitals conducting acceptable residencies are eligible for participation under the bill, it is still necessary for each residency hospital to seek approval as an individual institution from the appropriate state agency. The law requires the governor of each state to designate an authority in each state to approve educational institutions. In most states this agency is the Office of Education, by whatever name it may be called. A revised list of these agencies for all the states is given in section 10. No hospital can participate unless it is approved by the state agency; veterans receive no subsistence allowance

while serving as residents in a hospital not so approved.

It is the responsibility of these state agencies to see that only institutions offering education of a high quality be certified for participation, as a protection to the veteran.

3. *Eligibility of Veterans.*—Honorably discharged physician veterans of this war are eligible for educational benefits for a period of time equal to one year plus the duration of their active duty since Sept. 16, 1940, and prior to the termination of the war, not including time spent on active duty in the A. S. T. or Navy V-12 programs, and not to exceed a total period of four years. It is no longer necessary for the veteran to demonstrate that his training was interrupted by the war, regardless of his age when entering active duty. The period of training must be commenced within four years of discharge, or the termination of the war, whichever is later, and completed within the nine year limitation. In no case may the period of education exceed four years.

4. *Establishment of Eligibility.*—It is necessary for the veteran to establish his eligibility formally. This he does by filing an application on Veterans Administration Rehabilitation form 1950 at the regional office (see section 11) of the Veterans Administration. A certified copy of his discharge or a photostatic copy of his discharge should accompany the application. From the regional office the veteran receives a Certificate of Eligibility and Entitlement (Veterans Administration form 1953), which indicates the duration of the training to which he is entitled. This certificate must be endorsed by the approved hospital and forwarded to the regional office of the Veterans Administration. Benefits cannot be paid unless and until this process is complete. It is important for the veteran to make certain that the hospital has been approved by the appropriate state agency (see sections 2 and 10). It is also to the veteran's interest to make certain whether the hospital is also approved by appropriate nongovernmental approving agencies, lest the work done proves later to be useless for such special purposes as certification by one of the American Boards in the medical specialties.

5. *Subsistence Allowance.*—The veteran then receives a monthly subsistence check for $65 if without dependents or $90 per month if he has a dependent or dependents. These payments will not be made during terminal leave. Public Law 268, approved Dec. 28, 1945, repeals section 1505 Public Law 346 reading in part as follows: "In the event there shall hereafter be authorized any allowance in the nature of adjusted compensation, any benefits received by, or paid for, any veteran under this act shall be charged against and deducted from such adjusted compensation."

6. *Payments to Hospitals.*—The law and Veterans Administration regulations make special provisions for payments to educational institutions having no established tuition fee. These apply to approved residency hospitals, which rarely if ever have an established tuition fee; in fact, some participating hospitals will provide a modest stipend to the veteran and may even provide facilities for living in the hospital as part of his training, in which case the other provisions of this statement still apply. Regarding payments to hospitals, there are four alternatives available to hospitals:

a. The hospital may request no payments; this does not affect subsistence payments to veterans.

b. The hospital may have a regularly established tuition fee, which it may request from the regional office of the Veterans Administration for its resident veterans; this would usually be limited to some university or medical school hospitals offering fellowship or graduate work including residency training.

c. Hospitals may avail themselves of the regulations in Veterans Administration instruction No. 6, Title II, Public Law 346, amplified in conferences with the Veterans Administration. Any approved educational institution that has no established tuition fee or whose established tuition is considered inadequate compensation may charge for each veteran enrolled in a full time course as much as $15 per month, $45 per quarter or $60 per semester. In residency hospitals the length of the course of instruction is fifty-two weeks (including vacation), which does not fall within the Veterans Administration definition of an ordinary school year, as a period of thirty to thirty-eight weeks. Residency hospitals selecting this basis of compensation would be paid $15 per month, or $180 for a course of fifty-two weeks. This alternative will probably

apply to most hospitals desiring tuition remuneration.

d. A hospital that has no established tuition or that considers its established tuition charges to be inadequate compensation and desires payments in excess of that described in section 6 (c) may, in accordance with the provisions of Veterans Administration instruction No. 6, be paid fair and reasonable compensation not exceeding the estimated cost of teaching personnel and supplies for instruction. Hospitals desiring compensation on this basis will be required to submit through the manager of the regional office to the Assistant Administrator for Vocational Rehabilitation and Education, Veterans Administration, Washington, D. C., information on cost of teaching personnel and supplies for the courses of instruction. Information will also be required as to the value of services rendered by the residents and fellows to the institution. The value of such services must be offset under this basis of compensation against any costs for teaching personnel and supplies incurred in giving the courses in question. Medical school hospitals especially may wish to follow this alternative for fellowships involving residency training, when there is no established tuition fee for such work.

Note that it is only in connection with section 6 (d) that it is necessary for the hospital finally to deal directly with the Central Office of the Veterans Administration in Washington. In all other negotiations described in this statement the hospital as well as the veteran deal with local authorities: the regional office of the Veterans Administration or, initially, with the state agency which approves educational institutions.

7. *Responsibility of Hospitals.*—It is the responsibility of every participating hospital to maintain an educational program of high quality, fulfilling established and generally accepted standards for such work. No hospital is justified in embarking on or continuing residency programs unless these are acceptable not only under the law but professionally as well.

8. *Terminal Leave Period.*—An eligible physician veteran may embark on any educational program within the provisions of the act during his period of terminal leave. During this period of time tuition payments can be made to the approved educational institution to the same extent that they may be made after the medical officer's discharge. However, subsistence payments will not be paid to the veteran during the terminal leave period.

9. *Short Intensive Postgraduate or Training Courses of Less than Thirty Weeks.*—Institutions providing review and refresher courses of less than thirty weeks, having regularly established fees, must be approved by the appropriate state agency (see section 10) and must arrange for tuition payments with the regional offices of the Veterans Administration (see section 11). The veteran must establish his eligibility for this work as described in section 4. The fee can be charged, provided the cost is not in excess of the rate of $500 for a full time course for an ordinary school year. If the customary charges are in excess of the rate of $500 for an ordinary school year the Veterans Administration must find that the agreed cost of such courses is reasonable and fair. However, for review and refresher courses there will be charged against the veteran's time period of eligibility the proportion of an ordinary school year which the cost of the course bears to $500. For example, if an eligible veteran elects a two month course for which $250 is paid, there will be charged against the veteran's period of eligibility for training, not two months, but a half of an ordinary school year, since $250 is half of $500.

By taking such a review or refresher course the veteran does not forfeit the right for further education, within the limits of the period of eligibility for instruction for which he has been certified.

10. *State Approving Agencies.*—The state agency to which hospitals should apply for approval as educational institutions in Illinois is Springfield, Illinois, Office of Public Instruction, Mr. Vernon L. Nickell.

11. *Regional Veterans' Offices.*—The regional offices of the Veterans Administration and veterans' centers having regional office activities are listed here with the name of the manager of the regional office. It is highly important that each participating hospital become well acquainted with its own regional office, its manager and its policies and procedures. It is to this office that the hospital transmits the endorsed Certificate of Eligibility and Entitlement of the resident veteran and presents its claim for remuneration. It is from this office that the hospital and the

veteran receive payments. In Illinois this is the office of Mr. Charles G. Beck, Hines.

Subcommittee on Veterans' Affairs of the committee on Postwar Medical Service.

Frederick A. Coller.
J. W. Holloway Jr.
Victor Johnson.
Alphonse M. Schwitalla, Chairman

DEPARTMENT OF MEDICINE AND SURGERY IN THE VETERANS ADMINISTRATION

The Veterans Administration will be able to offer more attractive opportunities to doctors, dentists, and nurses interested in helping care for veterans with President Truman's signing of H. R. 4717, a bill to establish a VA Department of Medicine and Surgery.

VA officials estimate they need approximately 1,125 doctors, 1,200 nurses and 100 dentists to fill present vacancies. Additional positions will open as Army and Navy personnel at VA establishments are released from active duty.

The new act sets up a Department of Medicine and Surgery under a Chief Medical Director to replace the present VA medical set-up under the Civil Service. This act will bring professional personnel into an organization comparable with the Army and Navy Medical Corps and the U. S. Public Health Service. VA officials hope that higher salaries and better professional advantages will attract a sizeable percentage of the thousands of high grade doctors, dentists and nurses being released from the armed services.

So acute has the shortage of personnel become in VA hospitals and homes that some activities have had to be curtailed and the transfer of seven Army hospitals earmarked for transfer to VA has been hampered.

The new medical department set-up will permit VA to employ applicants promptly to meet the present emergency situation as well as to evaluate and grade all doctors, dentists and nurses on the basis of their professional qualifications.

Among the major provisions of the new act, besides setting up a medical department outside Civil Service, are the following:

(1) Specialists certified by VA will be paid 25 per cent more salary up to a ceiling limit of $11,000 a year.

(2) Residencies will be set up in VA hospitals where younger doctors may study to qualify as specialists. This will mean that veterans will be able to obtain the most up-to-date medical treatment — the same kind as if they were admitted to hospitals connected with the nation's leading medical schools and centers.

(3) Promotions will be made on recommendations of special VA boards which, in general, compare with the "selection boards" operating in the Army and Navy for higher ranking officers.

(4) Through the establishment of appointment, promotion and disciplinary boards, the legislation will permit VA to have complete supervision of its own professional employees, based upon their professional competence.

In order to overcome the acute personnel shortage, Major General Paul R. Hawley, Acting VA Surgeon General, who is expected to become Chief Medical Director under the new set-up, will need additional professional workers if he is to carry out his plans to give VA one of the most progressive medical programs in the nation.

In the effort to provide the veterans with the best service obtainable, outstanding authorities in specialized medical fields have been appointed to assist General Hawley in establishing high standards of care for disabled veterans. These physicians are serving as consultants. In addition to advising VA, they will nominate leaders in their respective medical and surgical specialties who will be consultants in the 13 Branch areas of the United States to supervise in carrying out professional policies.

Close association with lay medical associations and teaching centers will assure modern scientific medicine in VA establishments, officials pointed out. Employees in the medical department will work with these outstanding specialists.

"Service with the VA offers professional opportunities comparable with the best, not only for qualified specialists but also for those who seek a future in an organization that is committed to the highest principles in American medicine," General Hawley said.

The Administrator of Veterans Affairs, General Omar N. Bradley, will establish the regulations which will replace the Civil Service rules which formerly governed VA professional personnel. The program now coming into operation

was first advocated by VA executives in 1922.

Both Generals Bradley and Hawley have advocated the change to a medical department as a means of obtaining the best doctors, dentists and nurses to treat veterans. They advocated extra pay for specialists, the establishment of residencies in VA hospitals, and the right of complete supervision over employment and separation of this class of VA employees on a basis of professional competence. The new act includes all three of these features.

The act approved by President Truman establishes the following divisions under the Chief Medical Director:

(1) Office of Chief Medical Director. The director will be paid a salary of $12,000 a year. A Deputy Medical Director will receive $11,500 and Assistant Medical Directors — not to exceed eight in number — will be paid $11,000 each.

(2) Medical Service.

(3) Dental Service.

(4) Nursing Service. The Director of Nursing Service will receive $8,000 annually and a Deputy Director, $7,000.

(5) Auxiliary Service. A chief pharmacist, chief dietitian, chief physical therapist, and a chief occupational therapist in the Auxiliary Service will be paid $6,000 annually. While the heads of the technical groups are appointed by the Administrator outside of Civil Service, the technicians working under them will continue to be chosen through existing Civil Service regulations. The act provides that the salary range for hospital attendants shall be $1,572 minimum to $1,902 maximum. The former pay scale provided for two grades at approximately these same salaries.

Appointments of key executives will be for a four year term, subject to removal by the Administrator for cause. Re-appointment will be for the same term.

Doctors, dentists, nurses and technicians now employed by the VA will be continued on their present jobs pending determination of their qualifications for appointment in the new medical department.

Another provision of the act which will permit professional improvement of VA medical personnel will allow up to five per cent of such employees to study or do research work for periods of time up to 90 days. This will enable doctors, dentists, nurses and technicians to attend recognized schools or work with the U. S. Public Health Service or other research groups. Officials pointed out that this would enable workers to keep abreast with the very latest developments in their respective fields.

Although they are not subject to selection or promotion by Civil Service, the members of the new VA Department of Medicine and Surgery will be under the Civil Service Retirement Act of 1920 and will receive its benefits.

Other hospital employees in VA hospitals not covered by the new act will continue to be appointed through the Civil Service channels which formerly governed their selection and promotions.

Initial appointments in the higher grades, VA officials explained, may be made for those qualified because of graduate training and professional experience.

The grades and annual full-pay ranges of the positions established by the new legislation are as follows:

MEDICAL SERVICE

Chief grade, $8,750 minimum to $9,800 maximum

Senior grade, $7,175 minimum to $8,225 maximum

Intermediate grade, $6,230 minimum to $7,070 maximum

Full grade, $5,180 minimum to $6,020 maximum

Associate grade, $4,300 minimum to $5,180 maximum

Junior grade, $3,640 minimum to $4,300 maximum

DENTAL SERVICE

Senior grade, $7,175 minimum to $8,225 maximum

Intermediate grade, $6,230 minimum to $7,070 maximum

Full grade, $5,180 minimum to $6,020 maximum

Associate grade, $4,300 minimum to $5,180 maximum

Junior grade, $3,640 minimum to $4,300 maximum

NURSING SERVICE

Assistant Director, $5,180 minimum to $6,020 maximum

Senior grade, $4,300 minimum to $5,180 maximum

Full grade, $3,640 minimum to $4,300 maximum

Associate grade, $2,980 minimum to $3,640 maximum

Junior grade, $2,320 minimum to $2,980 maximum

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VETERANS ADMINISTRATION SEEKS MORE ARMY HOSPITALS

Major Gen. Paul R. Hawley, acting Surgeon General of the Veterans Administration, reveals that the agency will be able to use more of the armed forces surplus hospitals. Of sixty declared surplus by the Army and Navy, General Hawley and Veterans Administrator Omar Bradley have accepted only eight. The others were deemed of temporary construction or located too far from medical centers. Hawley reports that the shortage of hospital beds is becoming increasingly serious, resulting more from a lack of personnel rather than a shortage of hospital facilities.

General Bradley has informed a Negro delegation that he will make an effort to end segregation of Negroes by the Veterans Administration. Previously he had told Negroes that the agency must follow local custom.

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ILLINOIS DOCTORS AWARDED MILITARY DECORATIONS

Major Walter W. King

Major Walter W. King, formerly of Peoria, Ill., was recently awarded the Bronze Star medal at Winter General Hospital, Topeka, Kan., where he is now stationed as chief of the surgical service. The citation accompanying the award emphasized his "meritorious service in connection with military operations against the enemy as surgeon, general surgical team No. 5, third auxiliary surgical group, from June 6, 1944 to October 16, 1944, in France and Belgium. Although the arrival of medical equipment and supplies was delayed during the landing of his surgical team on the invasion beach on D day, Major King, displaying outstanding initiative and marked professional ability, organized his group and gave immediate treatment to battle casualties. During subsequent operations he displayed tireless effort and worked many hours each day to bring expert medical service to seriously wounded patients." Dr. King graduated from Northwestern University Medical School, Chicago, in 1930 and entered the service Aug. 26, 1942.

Captain Seymour Hershman

Capt. Seymour Hershman, formerly of Chicago, was recently awarded the Bronze Star "for meritorious service in connection with military operations against an enemy of the United States during the period July 17, 1944 to April 28, 1945. Captain Hershman, serving as assistant to chief of surgical service, 109th Evacuation Hospital, distinguished himself by his outstanding performance of duty. The high degree of professional skill he displayed, his resourcefulness and loyal, untiring devotion to duty reflect great credit on himself and the military service." Dr. Hershman graduated from the Chicago Medical School in 1942 and entered the service Oct. 6, 1942.

Major Wesley B. Oliver

Major Wesley B. Oliver, formerly of Belvidere, Ill., was recently awarded the Bronze Star for a "display of fine administrative ability, indefatigable energy and tireless devotion to duty, all of which were of inestimable value in the prompt and efficient evacuation of Third Army casualties." Dr. Oliver graduated from Northwestern University Medical School, Chicago, in 1936 and entered the service Sept. 2, 1942.

Lieutenant Colonel William T. Holladay

The Legion of Merit was recently awarded Lieut. Col. William T. Holladay, formerly of Dixon, Ill., for "meritorious service and bravery, particularly in the 37th Division's campaign in Manila." Dr. Holladay graduated from Northwestern University Medical School, Chicago, in 1931 and entered the service March 15, 1941.

Major Samson D. Entin

Major Samson D. Entin, formerly of Chicago, was recently awarded the Bronze Star "for meritorious service with the 65th Infantry Division in France, Germany and Austria for the period March 5 to May 8, 1945." Dr. Entin graduated from Loyola University School of Medicine, Chicago, in 1936 and entered the service March 5, 1941.

Captain Martin M. May

Capt. Martin M. May, formerly of Marion, Ill., was recently awarded the Bronze Star and the Meritorious Service Unit Plaque. Dr. May graduated from the St. Louis University School of Medicine in 1938 and entered the service Oct. 7, 1942.

News of the State

PERSONALS · COMING EVENTS · MARRIAGES · DEATHS

ADAMS

Alfred Ash has returned to Quincy to the practice of medicine having been recently discharged from the U.S.Medical corps. He has been appointed chief medical officer at Illinois Soldiers' and Sailors' home.

Harry G. McGavran formerly of Chicago has established his residence in Quincy and will be connected with the Physicians and Surgeons clinic.

BUREAU

At the recent meeting of the North Central Illinois Medical Association's annual meeting held in Princeton, the following officers were elected: Dr. E. S. Murphy of Dixon, president, Dr. J. M. McCuskey, Peoria, first vice president, Dr. M. A. Nix, Princeton, second vicepresident, Dr. G. A. Dicus, Streator, secretary-treasurer. Dr. K. M. Nelson of Princeton, retiring president, was elected to the board of trustees.

CHAMPAIGN

At the annual election meeting of the Champaign County Medical Society held December 7th, the following officers were elected: Dr. C. S. Bucher, Champaign, president; Dr. L. M. Stilwell, Champaign, vice-president; Dr. J. D. McKinney, Champaign, secretary-treasurer.

J. B. Gillespie has returned to the Carle clinic after three years of army service.

COOK

On December 10th the first reunion of Oak Park Physicians Club took place. Among those present who have recently returned from service were: Comdr. J. R. Boyd, Col. W. J. Potts, Col. R. F. Sharer, Col. H. A. Sofield, Col. H. E. Swantz, Comdr. P. C. Waldo, Capt. C. M. Pohl, Comdr. J. C. McMillan, Comdr. H. H. Stephens, Dr. R. H. Newell and Capt. H. Santaro.

Charles B. Huggins, professor of urology at the University of Chicago since 1927, has accepted the position of director of the department of urology at the Johns Hopkins school of medicine, Baltimore, Md., and director of its Brady Urological institute.

Comdr. Frank E. Nagel expects to return to private practice in Chicago after having served in the U. S. Navy for 44 months.

A. C. Peterson has returned to civilian practice after having served in the Navy since April 1941.

Major Verne Swigert, veteran of 3½ years with the army medical corps, recently was given his discharge and has returned to his practice in Evanston.

Joseph Fireman, former Chicago doctor, who has received his release from the service, has opened office in Northfield for the general practice of medicine.

Leo A. Kiplan, recently discharged from the Army, has resumed his former position as assistant director of the Cook County Behavior Clinic. He also has assumed the assistant professorship in the nervous and mental disease department of Loyola University, a position which he held before the war.

Charles T. Roe has returned to private practice after spending three years in service in the medical corps.

W. E. G. Johnson has returned to civilian practice after spending 17 months in England in the armed service. While in England he specialized in orthopedics.

Manuel Goldfine, recently separated from service, has opened his office again for private practice.

Wm. McManus has returned from the army after three years service with the Third Air Force and opened a new office in Oak Park.

Capt. Elmer Albers formerly of Lemont has received his discharge from the Army. Future plans are indefinite.

Francis J. Sazama has announced his return from military service and the establishment of his new office in Riverside.

Major Emil J. Bunata, recently returned from military service, has resumed his duties as health director of Berwyn.

Word has been received from Cmdr. Harold H. Hill, who has been attached to the Medical Battalion, 1st Marine Division, that they are now stationed in Tientsin, China. Cmdr. Hill states they have a fairly modern 400 bed hospital which they are busily engaged in staffing.

Truman D. Schertz, discharged recently, has returned to the practice of medicine in Prospect Hts.

Jerry Kearns, chief pathologist in the Cook county coroner's office until he entered active service in the navy in 1940, returned to his peace time work after his release from service.

A gift of $4,000 was presented to the cancer research division of Michael Reese hospital by the Daisy Schwimmer Foundation.

At the annual meeting of the board of governors of the Institute of Medicine of Chicago, December 12, the following officers were elected for the coming year: Drs. William F. Petersen, chairman of the board of governors; Ernest E. Irons, president; Percival Bailey, vice president; George H. Coleman, secretary; Grant H. Laing, treasurer. Dr. Italo F. Volini was elected a member of the board of governors for a term of five years.

The fifteenth floor of the Ward Memorial Building, Northwestern University Medical School, is now under construction for the housing of experimental animals. The equipment will be the most modern type, with air conditioned and temperature controlled rooms, stainless steel cages and tile walls and floors. One wing will have animal quarters to be used principally for receiving and housing dogs; the other wing is to have rooms which will be occupied by the Institute of Neurology and other departments that use animals for experimental purposes. The wing on the fourteenth floor, vacated through the addition to the new floor, will be used by the department of experimental medicine.

Drs. John A. Wolder and Karl A. Meyer, both associate professors of surgery at Northwestern University Medical School, were recently promoted to professors of surgery.

On January 2nd eighty-three new physicians and surgeons began their duties at Hines hospital in a move to supply veterans' hospitals with the same caliber of medical care as patients received in private hospitals.

Cmdr. George G. Fischer, placed on inactive duty, has established the practice of medicine in Wilmette.

Charles E. Boylan after three years of service with the U.S. Navy has opened offices again in Chicago.

Hugo Long, Chicago Heights physician now in the Navy Medical Corps has been promoted from lieutenant commander to commander.

Louis Greenspon has returned to Chicago Heights and reopened his office for private practice. Dr. Greenspon was in service more than three years, two of which he spent in the Pacific area.

DU PAGE

Arthur S. Webb of Wheaton has become president of the Du Page Family Service Association, a volunteer agency which gives counsel in personal and family problems.

G. A. McGuinness has reopened his office in West Chicago for the practice of medicine.

Clarence B. Wyngarden has returned to Wheaton to resume his practice after serving 23 months in the Army Medical Corps.

Major L. J. Kunsch has returned to Naperville and resumed his practice as physician and surgeon.

EFFINGHAM

Lt. Col. W. J. Gillesby, Effingham has returned home after 38 months of service. He has no immediate plans.

FRANKLIN

Captain Marion A. Turner has returned to Christopher to resume his practice about Feburary 1.

GREENE

At the Quarterly meeting of the Greene County Medical Society the following officers were elected for 1946: Dr. A. D. Wilson, President; Dr. R. W. Piper, Vice President; Dr. W. H. Garrison, Secretary; and Dr. A. K. Baldwin, Censor. Drs. George L. Drennan and W. H. Newcomb of Jacksonville, were the speakers.

HANCOCK

Jay D. Trotter on terminal leave after medical service with the armed forces, has opened offices in Carthage and resumed his practice.

HENRY

T. B. Carney of Kewanee has been elected president of the Kewanee Physician's club at their annual meeting held in December.

JACKSON

Lt. L. J. Brown, former Carbonale physician, who has been stationed in Pearl Harbor for the past 18 months has been detached from duty and reassigned to the continental United States. When he receives his discharge from the Navy, he expects to resume his medical practice in Carbondale.

Major Ellis R. Crandle, has been relieved from active duty with the Army and has returned to Carbondale where he expects to resume practice around the first of the year.

JEFFERSON

At the December meeting of the Jefferson-Hamilton County Medical meeting, Rev. Alphonse M. Schwitalla, Dean of the St. Louis University Medical School, St. Louis, was the guest speaker.

KANE

Emil K. Mosny has returned to his practice in St. Charles after serving with the Navy medical department in the Pacific.

Gerald L. Sharrer has returned to Aurora and resumed his practice of medicine after 22 months of service with the Navy in the Pacific area.

KENDALL

Ray F. Crawford expects to establish the practice of medicine in Plano as soon as he is released from the Navy. He will be associated with Dr. R. A. Schaefer.

KNOX

John P. Graham, recently discharged after three years of service with the Army Medical corps, has opened an office in Knoxville.

LA SALLE

Rollin S. Moore has resumed his practice of medicine in Streator after an absence since November 1941 when he enlisted for service.

LAWRENCE

L. W. Frame health officer for the countries of Lawrence, Wabash and Edwards has resigned to accept a position with the Farm Security Administration in the Reserve U.S. Public Health Service. He will be located in Dallas, Texas.

LEE

Edward Murphy, who has spent several years in the service is expected home in February to resume his practice and again be associated with his brother, Dr. David Murphy.

MC HENRY

William J. Copeland has resumed his practice of medicine in Cary and hopes to open an office in Fox River Grove as soon as feasible.

Lt. Col. W. H. Newton has returned to Woodstock after six years of active duty with the Army. He is associated with Dr. A. S. Romberger and returned to the practice of medicine.

MC LEAN

The following doctors have resumed their practice of medicine in Bloomington after having been discharged from the Navy and Army: Dr. W. G. Ball, Dr. C. A. Conklin, Dr. Robert G. Price and Dr. Sidney S. Schochet.

MACON

Forrest R. Martin has returned to Decatur after serving more than four years in the armed forces and resumed his practice of medicine.

MACOUPIN

W. W. Lusk expects to reestablish his practice in Carlinville about the first of February.

MADISON

John H. Wedig has established his offices in Alton after having spent almost three years in the armed service.

M. L. Metro has returned to Alton after two years of service and has opened offices for the practice of medicine.

The Alton Medical Society elected the following officers for 1946: J. B. Hastings, president; Everett R. Quinn, vice-president; Dewey Roberts, secretary and Mather Pfeiffenberger, treasurer.

MORGAN

At the regular meeting of the Morgan County Medical Society held in December A. W. Burke of the Communicable Diseases, Illinois Department of Public Health, discussed tropical diseases. Dr. Burke has just returned to Springfield after a long service in the South Pacific.

Alfred G. Schultz has returned to Jacksonville to practice medicine after spending 44 months in the armed forces.

PEORIA

The following Peoria doctors have returned from the armed forces and reestablished their practice of medicine: Wilbur L. Bowen, Frank A. Christensen, Robert K. Dean, G. M. Frye, Richard R. Martin, J. M. McCuskey, G. M. Parker and Robert Rutherford.

The Peoria Medical society has elected the following officers: C. W. Margaret, president; Robert M. Sutton, vice-president; Walter E. Owen, reelected secretary-treasurer.

St. Francis Hospital in Peoria recently installed an x-ray unit in connection with its admitting office, becoming the first hospital in Illinois to establish such medical service. The equipment was purchased by the Peoria County Tuberculosis Association from Seal Sale funds, and was placed in St. Francis Hospital because it is the largest in the city and has a greater admittance.

The purpose of the unit is to x-ray on admittance the chests of all patients 15 years or over.

RANDOLPH

The Randolph County Medical Society held a scientific meeting on December 13th. Guest speakers were Drs. W. H. Walton and G. C. Otrich both of Belleville.

RICHLAND

At a meeting of the Olney Rotary Club in December Dr. B. A. Weber gave an interesting discussion of the part army physicians played in both the Pacific and the European war theatres.

ROCK ISLAND

At the December meeting of the Rock Island County Medical Society three recently discharged service men were elected to offices. Dr. Rolland O. Sala of Rock Island was elected president; Dr. Clarence S. Costigan of Moline, first vice president, and Dr. George K. Cook of East Moline, second vice president. Reelected officers were Drs. Norbert C. Barwasser, secretary and Phebe Pearsall Block of Moline, treasurer.

ST. CLAIR

At the December meeting of the St. Clair County Medical Society, John C. Soucy was designated president-elect of the Society. Olin B. Boyd was installed as the 1946 president; Willard Scrivener, vice-president; Frank Bihss, secretary.

Edward G. Dewein, Freeburg, has been installed as president of the Belleville branch of the St. Clair County Medical Society with the other officers as follows: C. L. Martin, president-elect, H. P. Dexheimer, vice-president; G. C. Otrich, secretary; Edmond Bechtold, treasurer.

Col. John E. Roberts has been assigned base surgeon of the Army Air Forces Regional Hospital at Scott Field.

Walter S. Broker, formerly of Minnesota, has been appointed Medical Director and Superintendent of the Pleasant View Sanatorium in East St. Louis, succeeding Dr. Robinson Bosworth who has returned to private practice in Rockford. He assumed his duties at the sanatorium on December 11.

SALENE

A. C. Tobey has returned from service in the Army Medicial Corps and reopened his office in Broughton.

John Elder Choisser has been released from the Navy Medical Corps and has opened his office for the practice of Medicine and Surgery in Eldorado.

SHELBY

Duncan Biddlecombe has resumed the practice of medicine in Shelbyville after more than three years in the armed forces.

UNION

O. J. Burroughs recently discharged from the Army has opened an office in Dongola for the practice of medicine.

VERMILION

B. M. Jewell and F. M. Clark were named presidents of the medical staffs at the Lake View and St. Elizebeth Hospitals for this year.

John C. Mason has returned to civil practice in Rossville after having spent three years in the Army Medical Corps.

Henry P. Lattuada of Westville has established offices in Danville and will specialize in the practice of obstetrics and gynecology. He was in the armed service for 4½ years.

At the January meeting of the Vermillion County Medical Society returned Army and Navy Officers of the Society spoke on their experiences while in the Armed Services.

WILL

Cmdr. Campbell Carey of Joliet returned to private practice January 2nd having been released from the Navy after three years of service.

WINNEBAGO

Two Rockford surgeons, Dr. Curt Steffen and Dr. T. Arthur Johnson were awarded fellowships in the International College of Surgeons at the annual assembly meeting in Washington during December.

George W. Nelson has opened his office in Durand for the practice of medicine after having been in the armed forces and released.

J. Stuart Moffatt has opened an office in Rockford for the practice of general medicine. He had been in the service for four and one-half years, part of which was spent in the Pacific area.

DEATHS

WALTER H. ALLYN, Waverly. Barnes Medical College, St. Louis 1902. Had been mayor of Waverly as well as practicing physician. Died January 3rd. Age 70.

ADOLPHUS E. BERTLING, Chicago. Rush Medical College 1895. Practiced medicine many years in Chicago. Member emeritus of the Chicago and Illinois Medical Societies. Died January 6th. Age 80.

CARL E. BLACK, Jacksonville. Northwestern Univ. Medical School 1887. Former president of the Illinois State Medical association and widely known physician. Died January 13th. Age 83.

MAT BLOOMFIELD, Joliet. Rush Medical College 1912. Was chief of staff at the Silver Cross Hospital, a staff member at St. Joseph's Hospital and president of the Will County Tuberculosis Prevention Association. Died January 6th. Age 58.

LEON M. BOWES, Chicago. Rush Medical College 1903. Staff member of the Swedish Covenant for many years. For the last 25 years had volunteered his services as house physician at the Norwegian Old People's Home in Norwood Park. Died December 24th. Age 67.

EDWIN H. BRADLEY, Peoria. University of Vermont College of Medicine 1891. Practiced as an eye, ear, nose and throat specialist for more than 40 years. Member of the St. Francis hospital staff and former president of the staff. Died December 23rd. Age 84.

THEODORE W. BROWN, Marissa. University of Illinois Medical College 1940. Suffered fractured skull and multiple injuries from a fall. Had served 19 months in the Army Medical Corps, 10 months of which had been spent in New Guinea, Figi Islands, New Caledonia and Australia. Died December 3rd. Age 35 years.

LORIN C. COLLINS III, Chicago. Northwestern University College of Medicine 1900. Former associate professor of obstetrics at Rush Medical College member of the staff of Grant hospital. Had practiced medicine in Chicago 45 years. Died December 25th. Age 69.

CHARLES C. CLARK, Chicago. University of Illinois College of Medicine 1905. Physician in Chicago for forty years. Died December 28th. Age 66.

K. L. HAYES, Farmersville. University of Illinois College of Medicine 1906. Member of the staff of St. Francis hospital in Litchfield and St. John's and Memorial hospitals in Springfield. Suffered a heart attack. Died December 14th. Age 63.

A. R. LYLES, Virginia. College of Physicians and Surgeons, St. Louis, 1890. First president of the Cass County Medical Society. Elected mayor of Virginia in 1901. Died December 18th. Age 84.

WM. LINGARD, Chicago. Chicago College of Medicine and Surgery 1913. Died January 13th. Age 55.

ALVIN S. LOSEFF, Chicago. University of Illinois College of Medicine 1932. Army Lieutenant. Age 39.

GEORGE W. MAUZEY, retired, Findlay. Hospital College of Medicine, Louisville, 1893. Member of the "Fifty Year Club". Practicing physician in Findlay for over fifty years. Died January 2nd. Age 83.

GERALD MCSHANE, Spring Valley. Loyola University School of Medicine 1921. Former chief medical director at the Green River ordnance plant in Dixon. Died January 11th. Age 62.

JOHN H. O'NEIL, Chicago. Illinois Medical College 1904. Member of Evangelical Hospital for 25 years. Died December 20th. Age 63.

E. V. RICE, Polo. Kentucky School of Medicine 1894. Retired. Died December 23rd, following a stroke. Age 86.

FRED RUDNICK, Chicago. University of Illinois College of Medicine 1905. Physician in Chicago for 42 years. Died December 21. Age 71.

WALTON TACKETT, East Moline. Barnes Medical College 1907. Psychiatrist at the East Moline State Hospital since 1921. Died December 14th. Age 66.

T. H. THOMSON, retired, formerly of Moline. University of Western Ontario Medical School 1905. Died at Kingsmill, Ontario, December 4th. Age 67.

GERTRUDE F. THOMPSON, Chicago. University of Illinois College of Medicine 1903. Staff member of Women's and Children's Hospital for over 30 years. Died December 29th. Age 81.

FRANK X. WALLS, retired, formerly Chicago. Northwestern University Medical School 1891. Professor Emeritus of Pediatrics Northwestern University Medical School. Died in Fort Lauderdale, Fla. January 14th. Age 76.

CHARLES J. YOUNG, Danville. Jenner Medical College 1904. Died December 5th. Age 66.

AUGUSTUS G. ZIMMERMAN, Chicago. University of Strassbourg 1899. Associate clinical professor of surgery at Loyola University. Died December 19th. Age 67.

P. R. N.

The Jocular Jingles of C. G. F.

by

Charles G. Farnum M. D.
Peoria, Ill.

PIRATES

In ancient times, in southern climes,
Along the Gulf Coast water,
The pirates stayed, and fought and played,
And lived a life of slaughter.

These bucaneers put grewsome fears
In every town and village,
A savage crew, blood-thirsty too,
They'd smuggle, sack and pillage.

The ships that sailed quite often failed
To reach their destination;
As vessels sank, crews walked the plank,
To their annihilation.

On every side, both far and wide,
All reeked with blood and thunder;
In those days life was fear and strife,
When bandits loot and plunder.

L'Envoi

The same old pirate spirit dwells
Today. It never stops.
Their sons now run the swank hotels,
Their daughters, antique shops.

* *

AGE OF DISCRETION

We are told there are seven set ages of man
In his journey through life from the cradle to grave,
That in logical sequence are part of life's plan,
To which order of things every one is a slave —
So we look at all men with their virtue and sin,
And we ask where the age of discretion comes in.

Not in infant nor school boy nor youth that we meet,
Nor young manhood with types of behavior we see,
And if middle age tells us that it is discreet,
We just smile to ourselves and ask where it can be;
And old age and senility offer us naught,
Though the age of discretion is earnestly sought.

Though our search be most careful oft nothing is found
That will bolster up hope or offset our despair;
If within or about us discretion abound
It is surely unique and most utterly rare.
So observing the conduct of mankind for years
We still wonder where age of discretion appears.

FUTILITY

What of energy, time and of money
One sees spent by the men every day,
In a futile attempt
To preserve them exempt
From appearance of age and decay.

What a silly assortment of efforts
They resort to believing their age,
In their manner and clothes,
In their speech and their pose,
Entertainment and sports they engage.

But the calendar cannot be cheated,
Their ridiculous efforts are vain,
The advice of the sage
That a man be his age
Will protect from disgust and disdain.

And the saddest of all of these efforts
In his striving toward youth and its flare,
To look young is the goal
He deceives not a soul,
Is the man who keeps dyeing his hair.

* *

TIES

When a man becomes aged and feeble
And his vision has grown somewhat dim,
When his voice has a squeak
And his heart's a bit weak,
And he's minus his vigor and vim;

In the back of his mind there is lurking
An old lust for the blatant and gay,
So he springs a surprise
In the matter of ties
'Til the rainbow looks murky and gray.

So he wears wild vociferous neck ties
In all colors most gaudy and loud,
They are orange or blue
Or a gorgeous green hue
And of reddest of red he is proud.

While deep purple or pink are his hobby,
And cerise and maroon are divine,
He loves scarlet or rust
Or bright yellow star dust
Or a heliotrope, orchid or wine.

When senility stands in the offing,
And his life is but lowering skies,
Don't begrudge him the joy
That he had when a boy
With his frivolous colorful ties.

Have fun and relax —
AT THE ANNUAL MEETING
Palmer House, Chicago
May 14, 15, 16